

Chilton's MOTOR AGE

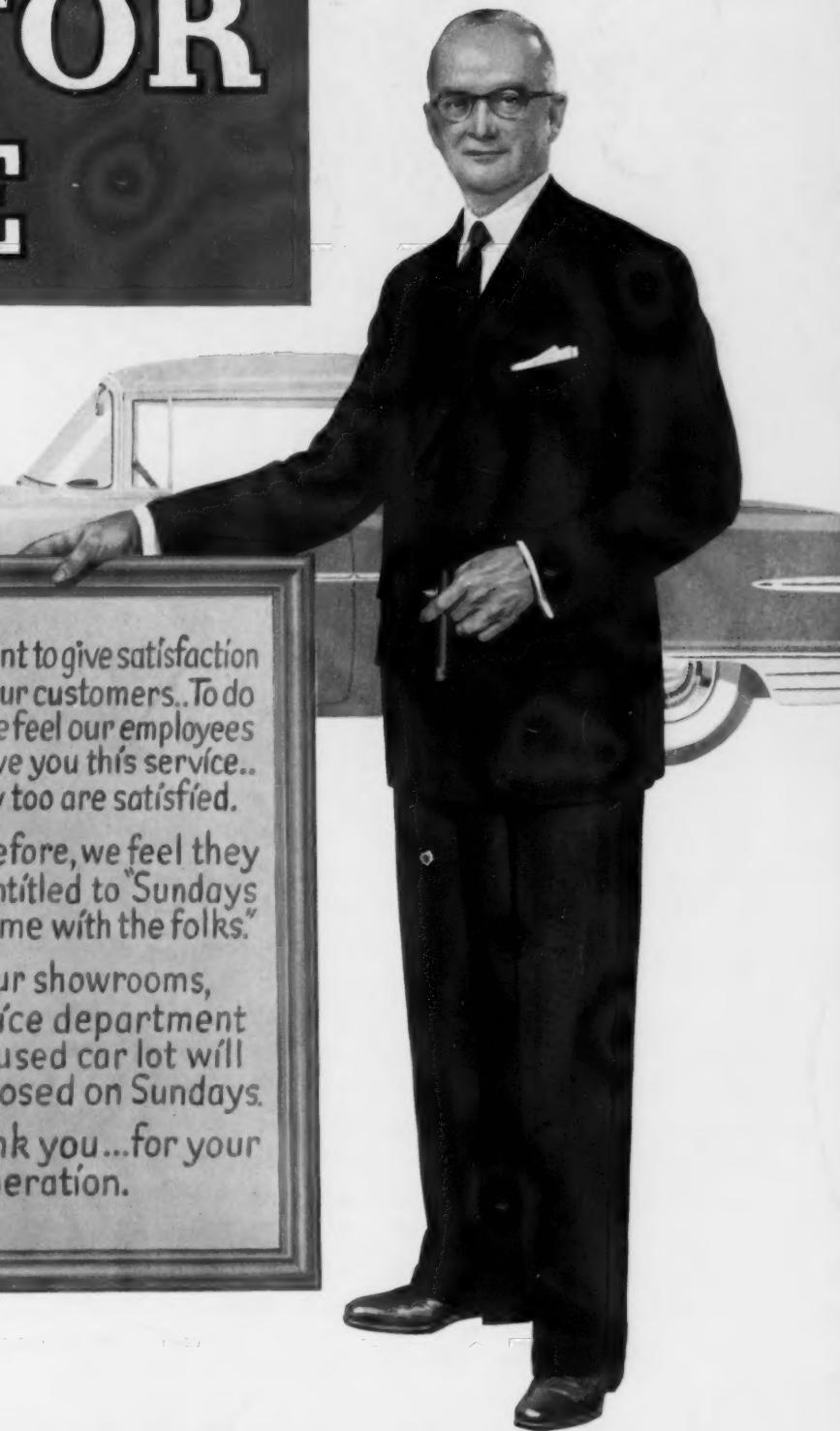
AUGUST 1956

We want to give satisfaction to all our customers.. To do this, we feel our employees can give you this service.. if they too are satisfied.

Therefore, we feel they are entitled to "Sundays at home with the folks."

So, our showrooms, service department and used car lot will be closed on Sundays.

Thank you...for your cooperation.



Jobber Executive Edition—follows page 32



Sealed Power PX Pistons are most economical on per-mile basis

It costs a lot of money to replace pistons. Sealed Power PX Pistons are the longest-lasting pistons on the market, and therefore cost the owner least, on a per-mile cost basis.

Special silicon aluminum alloy gives Sealed Power PX Pistons maximum heat dissipation, and control over expansion. The new 3-rib design transmits explosion load evenly from the head of the piston to the pin, preventing side-sway and misalignment.

Every PX Piston is factory-fitted with the exclusive Sealed Power GI-60 Groove Insert for protection against top ring groove wear, assuring longer life for both piston and rings. A special surface treatment absorbs oil and protects against cold-start scuffing.

Whenever you have a re-bore job, be sure you install Sealed Power PX Pistons—for best performance, longest wear, and utmost customer-satisfaction!

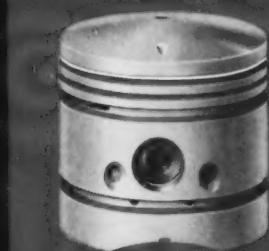
SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST FOR RE-RING! BEST FOR RE-BORE!



Sealed Power KromeX
Piston Ring Sets



Sealed Power PX Pistons



Sealed Power
Cylinder Sleeves



Sealed Power Valves



Sealed Power
Water Pumps



STOCK UP NOW FOR PROFITABLE WINTERIZING AHEAD WITH PERMATEX COOLING SYSTEM PRODUCTS

A COMPLETE LINE



**3 pairs of Cannon Stretch Nylons
with any 2 cases of these money-
making Permatex Products**

Full fashioned—flattering neutral shade—
60 gauge—15 denier—attractive gift box.

This offer starts September 1, 1956 and ends December 31, 1956.

No. 40D Block and Head Sealer. Seals cylinder cracks—split valve seats and parts—cracks in water jackets and cylinder heads.

No. 76M Radiator Sealer (liquid). Stops leaks and seepage in radiators, pump connections, water jackets. Compatible with all anti-freezes.

No. 38M Water Pump Lubricant and Radiator Anti-Rust. Affords full protection. Lubricates water pump parts—eliminates noise—reduces wear—prevents further rust and scale deposits.

No. 18E Heavy Duty Radiator Cleaner. For badly neglected cooling systems. Quickly dissolves rust, scale, lime—completely restores radiator circulation.

No. 77L Cooling System Cleaner and Conditioner. A complete cooling system service in one package. Cleaner (top of can) removes rust, scale, oil and grease. Conditioner (bottom) stops rust reforming—stops leaks and seepage.

Order from your jobber,
or write us direct now!

PERMATEX COMPANY, INC.

Brooklyn 35, N.Y. • Kansas City 15, Kans.

More Than 50 Chemical Products
for Better Automotive Maintenance



SECRET SERVICE TIPS by SHERLOCK McKANICK

**'The
voltage
regulator was
loaded with
clues.'**



LOOK IN THE VOLTAGE AND CURRENT UNITS FOR:

1. BURNT POINTS — Look for high resistance, bad ground in charging system.

2. OVERHEATED CONTACT SPRINGS — Look for crossed connections on regulator; shorted wiring, field coils.

3. BURNT WINDINGS — Look for open circuit (broken connection) or very high resistance in charging system.

4. DIRTY OR OXIDIZED POINTS — Insufficient maintenance. Needs cleaning like ignition contact points.

5. For more clues, send for **BLUE STREAK SERVICE BULLETIN 81-55**. See address below!

"When something goes wrong in the charging system," cautions all-seeing Sherlock Mc Kanick, "it leaves its mark on that innocent victim, the voltage regulator. Therefore, the regulator is often loaded with clues which will point to the culprit. Above are four clues that show how damage to the regulator leads to the crime committed elsewhere in the system."

You, too, can save yourself costly guessing. Discouraging delay, expensive time by becoming a registered Blue Streak dealer. You get the entire file of Secret Service Tips and continuing follow-ups. 40,000 Blue Streak mechanics use them to track down trouble fast.

Write STANDARD MOTOR PRODUCTS, INC.,
37-18 Northern Blvd., L.I.C. 1, N. Y.



Chilton's MOTOR AGE

WITH WHICH IS COMBINED AUTOMOBILE TRADE JOURNAL
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For THE AUTOMOTIVE SERVICE INDUSTRY

Vol. 75, No. 9

August, 1956

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THE ONLY COMPRESSION RING

with "Break-in Sheath" for fast seating

... and hard Chrome layer
for longer life!

SEATS fast as Cast-Iron

PLUS

WEAR of hard Chrome

"Break-in Sheath" seats as early as within 100 miles in engines operating under average conditions!

Layer of solid Chrome,
not scuffed during seating,
lasts up to 100,000 miles!

The dull "satin" finish on this new Moog Ring is the "Break-in Sheath"—a special metal with miraculous *seating power*—plated over the shiny, hard Chrome. Tests prove this sheath can stop oil pumping, improve gas mileage and give *new car power right from the start* to assure immediate customer satisfaction!

Since there is no scuffing of ring or cylinder wall during seating, Moog Chrome+Plus offers the *lasting power* needed in modern high-compression engines. Try a set on your next re-ring or rebore job and see the amazing difference!

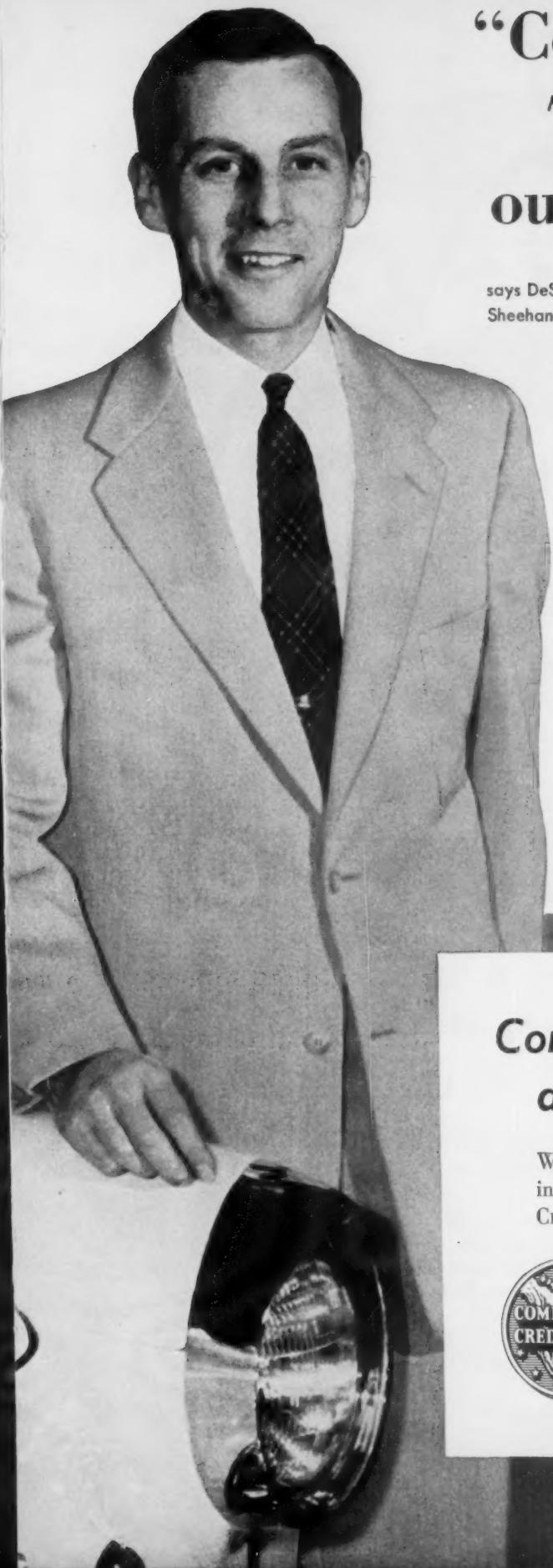
MOOG CHROME+PLUS PISTON RINGS

are available now for passenger cars, trucks and tractors. See your Moog Jobber or write us for information.

MOOG

A GREAT NAME IN
AUTOMOTIVE MAINTENANCE

MOOG INDUSTRIES, INC. • ST. LOUIS 14, MISSOURI



"Commercial Credit 7-Point Plan is our best salesman"

says DeSoto-Plymouth dealer **SHERWOOD H. SHEEHAN**, President, Sheehan Motor Sales, Inc.,* Buffalo, N.Y.

*Winner of 1953 Sales Achievement Award in DeSoto Sales. In 1955, among top ten out of 330 dealers in Syracuse region in Plymouth sales.

"We could no more operate without COMMERCIAL CREDIT PLAN than we could without our Service Department or salesmen. Its benefits are well known by the public anyway and our salesmen keep bringing its features into their selling talk. As a result, over 50% of our volume are time plan sales. The local COMMERCIAL CREDIT office gives our problems personal attention and their fast, courteous service to our customers and us means more and more repeat sales. All in all, I'd say COMMERCIAL CREDIT's 7-Point Plan is our best salesman."

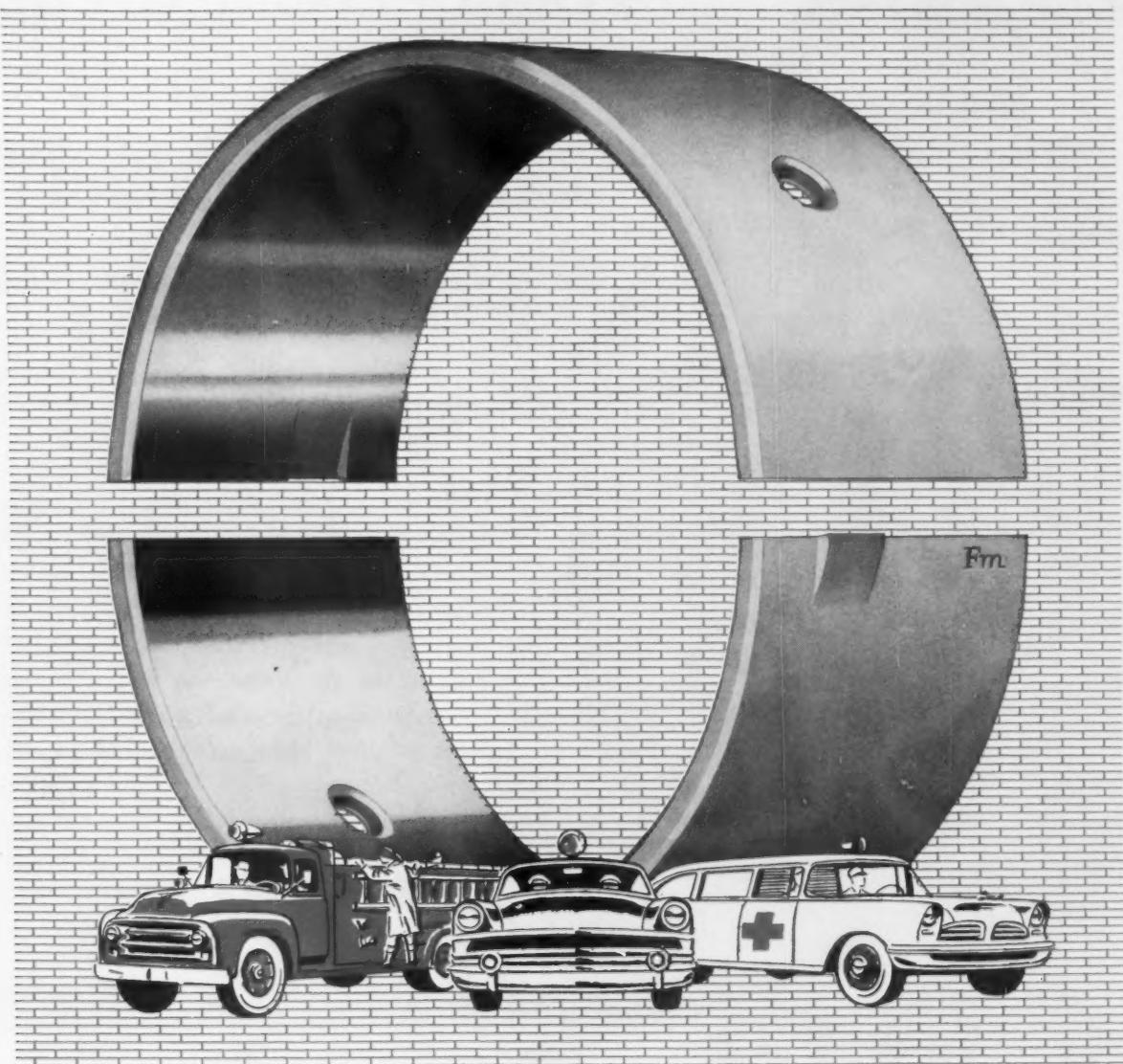
Commercial Credit dealers are successful dealers

Write or call our nearest office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it today?



COMMERCIAL CREDIT CORPORATION

A service offered through subsidiaries of the Commercial Credit Company, Baltimore . . . Capital and Surplus over \$190,000,000 . . . offices in principal cities of the United States and Canada.



Where performance counts most

GIVE THEM Fm QUALITY!

Ambulances, police and fire vehicles have urgent jobs. And so do the farm tractor, the highway truck and the salesman's car. Performance *really* counts!

When you overhaul the engine, *always* replace the bearings. It's the only sure way to rebuild performance. Replace—in sets—with genuine Federal-Mogul oil-control bearings. They're the *best-known brand* for car, truck, bus and tractor replacement. Ask your Federal-Mogul jobber!

FEDERAL-MOGUL SERVICE

Division of Federal-Mogul-Bower Bearings, Inc.



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DEMAND
AUSCO

...Speed Servicing with the
Finest, Safest Jacks Made!

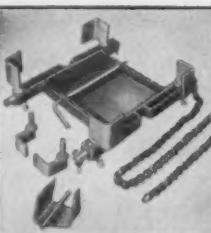


Hydraulic Transmission Handlers!

New Ausco Floor and Pedestal model Hydraulic Transmission Handlers are rugged, dependable and easy to use! Each has Ausco's Universal Adapter for fast, safe transmission handling!

UNIVERSAL ADAPTER...

- ✓ Fits all automatic transmissions, including Powerglide '53 and later.
- ✓ Adjusts 5½"–15" Width, 7¾"–15" Length.
- ✓ Holding clamps cradle pan of transmission. Flange of transmission rides on edges of clamps.
- ✓ Needs no tools for adjustment.
- ✓ Has convenient Safety Chain.



Look Over these new Ausco Jacks. Check their features against your needs—then Call Your Ausco Jobber for a demonstration. For jacks to speed every automotive service job, demand the finest, AUSCO!

HYDRAULIC TRANSMISSION HANDLERS

Floor Model D-6500

- Handles any transmission to 500 lbs. Capacity 1000 lbs. 3-ton replaceable power unit.
- Lifts from low 5½" to 24½".
- 4 caster wheels assure easy handling.
- Controlled or floating tilt—56° forward, 6° back.

Pedestal Model D-6600

- Controlled side tilt—10° left or right.
- Pump handle mountable both sides for left or right hand operation.
- 2½" ground clearance.
- Handy release.
- Handy tool trays.
- Weight 95 lbs.



- Handles any transmission to 500 lbs. 1000 lb. capacity.
- Lifts from 32° to 72°.
- Two stage pump, two speed.
- Foot drop to bench or fixture level.
- Tripod base straddles lift floor plates easily, caster

- Controlled tilt—28° forward, 10° back, 13° right or left.
- Slides laterally 3" on steel rollers.
- Pump in handle for ease of operation under lift. Dollying handle.
- Safety overload valve.

AUTO SPECIALTIES MFG. CO., INC. Saint Joseph, Michigan. Other Plants in Benton Harbor and Hartford, Michigan and Windsor, Ont., Canada.

AUSCO manufactures quality jacks for every automotive need . . . service facilities are available in your locality!



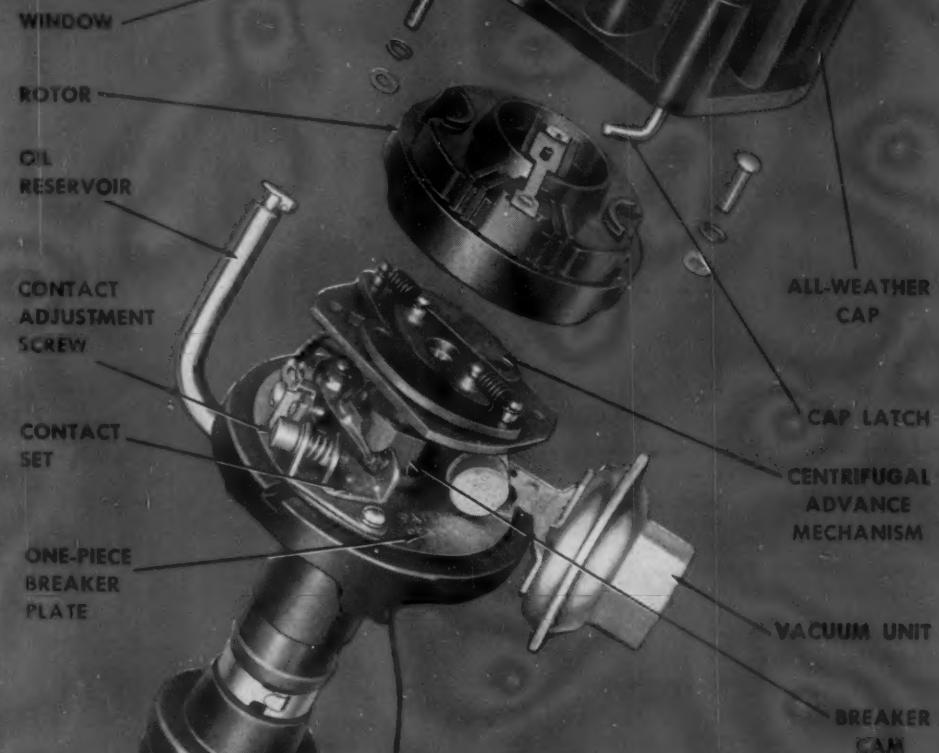
Passenger
Car Jacks
Biped;
"Y-Bar" Ratchet,
Frame Models

Garage
Horses
2 and
5 tons
Hydraulic Jack Oil
Pints, Quarts,
Gallons

One-End
Lifts
Hyd. & Mech.

Hydraulic
Axe Jacks
Std. and
Hi-Range
Hydraulic
Service Jacks
1½, 1½, 2, 4
and 10 tons

PROGRESSIVE ENGINEERING MAKES THE DIFFERENCE



DELCO-REMY DEVELOPS REVOLUTIONARY NEW EXTERNAL ADJUSTMENT DISTRIBUTOR

Designed especially for *present* and *future* high-compression engines, Delco-Remy's trend-setting new external adjustment distributor increases timing accuracy, provides greater electrical efficiency and durability combined with unprecedented ease of servicing.

Contact point opening (and hence cam angle) is adjustable through a "window" in the cap *while the engine is running*. No special tool is required—just a simple "hex" wrench. The contact point set is a unit completely assembled and adjusted before being attached to the breaker plate . . . is easy to replace, in servicing, with a new factory-adjusted set, simply by removing two attaching screws.

Centrifugal advance components have been relocated to a position *above* the circuit breaker mechanism, making it possible to locate the high-rate-of-break cam and the high speed breaker lever directly adjacent to the main bearing, for maximum rotational stability. The new one-piece circuit breaker plate rotates about the upper main bearing on a precision-fit bearing surface concentric with the shaft. Because of this new low-friction, concentric-rotating breaker plate, vacuum advance performance and hence fuel economy, are improved.

The new all-weather cap is easy to remove and replace—even in crowded underhood areas—by simply turning the spring loaded latches with a screwdriver. Removal of the cap completely exposes the entire distributor mechanism for easy access.

This all-new design in ignition distributors is another example of Delco-Remy leadership "Wherever Wheels Turn or Propellers Spin."

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA



GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS

Get behind the plan that really sells brake service

THE RAYBESTOS 7-POINT BRAKE CHECK

YOU JUST MAKE THESE 7 QUICK CHECKS

You get paid for every car you check

1. Pull front wheels and inspect linings
2. Check brake drums
3. Inspect front wheel bearings
4. Clean brake assembly
5. Check hydraulic system
6. Adjust brakes or recommend a relining
7. Road test brakes

YOU GET THESE SALES AIDS AND NATIONAL ADVERTISING



MAKE WHEELS OFF PAY OFF! SEE YOUR RAYBESTOS JOBBER TODAY!

RELINE WITH
Raybestos®
AMERICA'S BIGGEST SELLING BRAKE LINING



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Packings • Abrasive and Diamond Wheels • Bowling Balls

RAYBESTOS QUALITY HELPS YOU CASH IN



RAYBESTOS PG SETS. All Raybestos brake linings are Proving Ground Tested for greater highway safety. And only Raybestos linings are made by 7 different manufacturing processes to provide scientifically engineered factory-packaged lining combinations for every make and model car.



RAYBESTOS "CONTOUR GROUND" LINED SHOES — the answer to all fixed anchor brake problems—are perfect for adjustable anchor brakes, too. Raybestos "Contour Grinding" assures true shoe radius—perfect lining-to-drum contact. It permits no high spots—no spongy pedal action due to excessive belly contact.

What makes customers come back for more?



They'll all come back if you give 'em the best. When it's
a bearing job ... just tell 'em it's **TIMKEN**!

A game and refreshment room might bring 'em in. But the real pulling power lies in car service. When you give 'em the best in replacement parts, you give the best in service. That means replacing with best-known names, like "Timken®". They'll all come back if you show 'em

the trade-mark "TIMKEN" on the bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ont. Cable: "TIMROSCO".

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

NOT JUST A BALL NOT JUST A ROLLER THE TIMKEN TAPERED ROLLER BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION



QUALITY PRODUCT...

QUALITY DEALERS...

that's Oldsmobile's winning combination!



QUALITY DEALING
PAYS OFF
IN ROCKETING SALES
FOR OLDSMOBILE
DEALERS!

It's goodwill that keeps them coming back! From years of experience, Oldsmobile Quality Dealers know that a quality way of doing business, plus a quality product like Oldsmobile, makes a winning combination. They know that satisfied customers mean profitable repeat sales and increased service business for them. They've found, as well, that straightforward selling methods and conscientious service have built a reputation that tips the scales in favor of Olds no matter what the competition. They're powerful reasons why it's smart to be an Oldsmobile Quality Dealer!

OLDSMOBILE

DIVISION OF GENERAL MOTORS CORPORATION

• LANSING, MICHIGAN

Chilton's MOTOR AGE, AUGUST, 1956



"They're made in Quaker State's own plants— that means quality...and profit!"

Motor oils, greases, transmission fluids—here's a complete line, a modern line, a profitable line. And it's a line refined in exclusive Quaker State ways from Pure Pennsylvania Grade Crude Oil. What's more, every item is made right in Quaker State's own plants where each production step is care-

fully and expertly controlled by petroleum engineers and chemists who are specialists in automotive lubrication. This means superior quality products...the kind that build regular, satisfied customers—and steady profits for you. Make sure you order Quaker State...right down the line!



QUAKER STATE OIL REFINING CORPORATION, OIL CITY, PA.
Member Pennsylvania Grade Crude Oil Association

Why do you think they build



*Because Packard Cables
last longer and cost less per mile,
they're used most on new cars,
trucks and buses!*

ENGINE COMPARTMENT CABLE —A special Packard development made with new type insulation to withstand heat, fuel-oil vapors, steam and cleaning compounds.	"440" IGNITION CABLE —Long the leader, this Packard-developed high tension cable continues to be used on more vehicles than any other except those using Packard TVRS.	TELEVISION - RADIO - SUPPRESSOR CABLE —This Packard exclusive suppresses radio and TV interference and is original equipment on millions of vehicles.	BATTERY CABLES —Special design delivers full starting power . . . provides extra flexibility and strength. Additional features at no extra cost make replacement easier.

'em with PACKARD CABLES?



Don't replace . . . RENEW! When stocking cable, follow the lead of the vast majority of automobile and truck manufacturers and specify Packard. You'll give your customers like-new service.



MEET THE LEADER . . . PACKARD LOW TENSION CABLE WITH "404" INSULATION!

Here's a tough, highly flexible cable with stranded copper conductor that meets all requirements without use of braid. It's slimmer. It strips more easily. And, it gives greater customer satisfaction. The "404" insulation is oil-proof, flame-proof, moisture-proof and acid-proof. Millions of feet are installed daily on new cars, trucks, buses and tractors.

Packard Cables are engineered to give superior performance in every class of automotive service. Vibration, temperature, acid, constant flexing—Packard Cables conquer all these. And they're made for easier installation, too! More than half the cars that pass your door are equipped with Packard Cable.

Now's the time to call your Packard Jobber for fast, single-source delivery service. You'll be pleased to find that all items are packaged for your convenience!

FOREMOST BUILDER OF AUTOMOTIVE WIRING

Packard
REG. U.S. PAT. OFF.
TRADE MARK



Packard Electric Division, General Motors, Warren, Ohio

A GENERAL MOTORS PRODUCT — A UNITED MOTORS LINE
DISTRIBUTED BY WHOLESALERS EVERYWHERE

Phony Fables about Oil Seals



Fable No. 5

Any oil seal that fits is right!

Wrong! Seals are precision devices. Thousands of hours of engineering time and proving-ground testing go into each number. Many seals may fit the bore—but only the right one will do the job dependably.

Always install new seals every time old ones are removed—and be sure you install perfect fit, top quality Nationals, America's largest selling replacement seal. National Oil Seal service stocks insure having the right seal on hand when needed, and the handy chart in each service stock makes finding the right seal a matter of moments.

Why not ask your jobber today about a fast-moving National Oil Seal service stock?

3785



Support this
industry-wide
program



NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, California
PLANTS: Redwood City, California and Van Wert, Ohio

SAFETY
GREASE FRONT WHEELS
USE NEW GREASE SEAL

NATIONAL

OILSEALS
INSURE
BRAKE LININGS
BERRINGS

NATIONAL

Small National stock for lube stations.
Over 50 front wheel seals.

Large National stock. Over 100
front and rear wheel seals.

NATIONAL
OIL & GREASE SEALS
O-RINGS SHIMS

Approved original equipment for all cars, trucks,
buses and tractors.

FLASH

First- and Second-Place Winners
Sparked by AC HOT TIP PLUGS!



1956 Stock Car Pikes Peak Climb proves AC Spark Plugs have what it takes!



Winner Jerry Unser, Jr., flashes happy victory smile after winning Colorado Springs Stock Car Pikes Peak Climb in AC-equipped Chevrolet.

COLORADO SPRINGS, Colo., July 4, 1956—Stock Chevrolet cars sparked by regular automotive AC Spark Plugs finished one-two in the famous Pikes Peak Hill Climb. This exciting race over a gruelling 12.5 mile course, with vertical rise of 4,708 feet to 14,110 foot elevation, found Jerry Unser, Jr., hitting the peak first in 16 minutes, 8.0 seconds. Close behind at 16 minutes, 21.6 seconds was Bob Korf. These boys "revved up" their cars way beyond normal, putting the plugs to a torture test infinitely greater than they would ever experience in regular driving. It's a great record achieved under conditions of hard climb over rough crush granite surface with 165 curves and hairpin turns—real proof of top performance built into regular-stock AC Spark Plugs.



- 1 AC buttress top insulator has longest "flash-over" path of any well-known spark plug.
- 2 AC fused ceramic-metal center-wire seal prevents "blow-by", insures perfect conductivity. Conductaseal is an AC exclusive.
- 3 Another AC exclusive is the famed AC Hot Tip formed by recessed insulator tip. Heats fast to burn away deposits—cools fast to prevent pre-ignition.

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

Moraine-400 Bearing

A special aluminum alloy and cladding process developed by General Motors and Moraine Research gives the Moraine-400 its extreme toughness—makes it the toughest automotive engine bearing ever known.



M-100 Bearing

Exclusive Moraine matrix between babbitt and steel provides a more secure metallurgical bond plus all the advantages of thin babbitt overlay, without limiting embedability. M-100 bearings have excellent fatigue resistance and longer life expectancy.



"COMPLETE LINE OF

Another General Motors Value



Moraine BI-METAL Bearing

Conventional steel-backed babbitt type. Precision bearings built to original equipment specifications give longer, more dependable service in moderately loaded engines.



Moraine Engine Bearings

are attractively packaged, easily identified on your shelves. Order your new United Motors catalog containing information on the complete Moraine bearing line.



MORAINE ENGINE BEARINGS

Puts You in Line for the Biggest Pre-Sold Market"

More cars, trucks and buses come off assembly lines equipped with Moraine engine bearings than bearings of any other make. Moraine engine bearings have the fit and the durability you expect when you install the service bearings designed and produced as replacements for *original equipment* applications.

So, stick to Moraine!

That's easy to do. Service bearings, for every Moraine original equipment application, are available everywhere. You can get them quickly through the United Motors System, or through your General Motors car or truck dealer.



Moraine Products

Division of General Motors, Dayton, Ohio



A GENERAL MOTORS PRODUCT — A UNITED MOTORS LINE
DISTRIBUTED BY WHOLESALERS EVERYWHERE





SELLING SLANTS

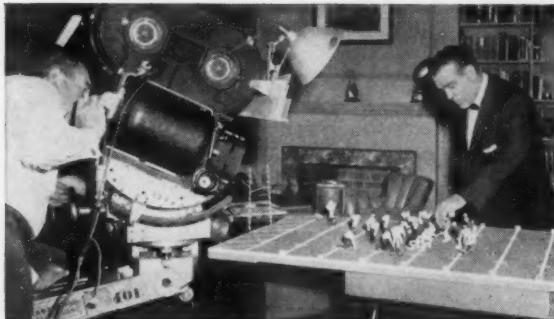
FROM DU PONT·MAKERS OF "ZERONE" AND "ZEREX" ANTI-FREEZE



Here's lovely Betty Oakes, elected Du Pont's Miss Anti-Freeze 1956. She's a part of the Du Pont sales team working to put more profit in your till. Your customers will be seeing her during Du Pont's Anti-Freeze Week promotion, in publicity stories, on TV and radio, and in newspapers and magazines, all urging motorists to see you for their "Zerone" and "Zerex" anti-freeze. Plan to start selling early and get a head start on the big profits.



© AM. MAP CO.—11693
Be ready when Anti-Freeze Week comes to your part of the country.



TV viewers will have fun watching exciting films of the top football teams in action on "Frank Leahy and His Football Forecasts" this fall. "Coach" Leahy is real hot at predicting grid scores, and even hotter as a "Zerone" and "Zerex" salesman. More than 30 million saw the show last year, and it's sure to attract a bigger following this year. Don't you lose sales—order enough of Du Pont's two leading anti-freezes now.



Tough driving tests, through the scorching heat of Death Valley to the freezing temperatures of Pikes Peak, and also at tropical Daytona Beach, proved that not one drop of "Zerone" will boil away in today's modern car with a properly operating pressurized cooling system.

SELLING SLANT: Check the pressure cap and cooling system of every car you can and then sell your customers the low-cost, no boil-away protection of "Zerone" anti-freeze. It's a good way to build profits and lasting good will.

Remember, nine out of ten times you get the job when you ask for it!

Now's the time to plan for Anti-Freeze Week sales

Anti-Freeze Week is planned to break in your area at least a week *before* the first cold snap! Why *before* the first freeze? Because it helps you to get an early start and to spread out your winterizing business. It gives you time for profitable cooling system check-ups—time to sell more "Zerone" and "Zerex" and time to pick up more of the business that always comes with that first wild rush for anti-freeze and service.

Anti-Freeze Week is a *hard-hitting* promotion. Your local newspapers and radio stations will be carrying daily Anti-Freeze Week announcements.

There'll be Frank Leahy telling motorists all about it on Du Pont's 15-minute TV Football Show. There'll be publicity stories, too, to send customers to you for *early* winter car care.

Here's what you do to profit: Plan a tie-in winterizing service of your own and be sure to display your Du Pont "Zerone" and "Zerex" dealer kit!

Do these two things and you will attract more customers, make more profits not only during Anti-Freeze Week...but all season long. And, of course, be sure to order *enough* "Zerone" and "Zerex"—*early enough* to meet the big demand.

WRITE TO:
SELLING SLANTS
E. I. DU PONT DE NEMOURS & CO. (INC.)
"Zerone"-Zerex" Section
Nemours 2420-E-2, Wilmington 98, Del.



ZERONE® and ZEREX®
ANTI-FREEZE

BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

Mechanics know how— MODERN TOOLS MAKE MONEY!



No doubt about it, you can't keep up with today's exacting automotive service and repairs without the modern Tools that put you in the ballgame. In fact, if you don't have the modern Tools that have been designed by New Britain to make your job easier and service better, you just don't make the bigger dollar in today's automotive repairs!

In addition to the scores of standard New Britain Sockets and Drive Parts that thousands of good mechanics have depended on for years, there are many new Tools, that can save time and trouble for you, and probably should be in YOUR Kit right now! Ask your Jobber about these modern New Britain Tools that make more money for mechanics!

Here— ARE JUST A FEW OF THE TOOLS
THAT SHOULD BE MAKING MONEY FOR YOU



FG-12
Ford Feeler Gauge



P-65
Brake Spring
Pliers Adapter



M-110
2-in-1 Brake Tool



T-125
Tube Cutter



RW-14 to RW-28
Ratcheting Box Wrenches



E-40
Point Bender

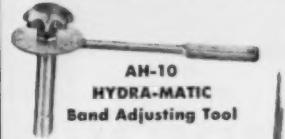
New Britain

HAND TOOLS

THE NEW BRITAIN MACHINE CO. • NEW BRITAIN, CONN.

Right now!

PLUS THIS GREAT NEW
FAMILY OF AUTOMATIC
TRANSMISSION TOOLS



AH-10
HYDRA-MATIC
Band Adjusting Tool



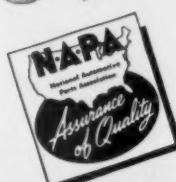
ATL-2
HYDRA-MATIC
Throttle Arm Gauge



ATL-3
HYDRA-MATIC
Throttle Arm Bender



ASD-6
Seal Driver
Set





Some spark plugs are designed for low speeds,

ONLY POWER TIP



Now! First and only spark plug



ignition-engineered for today's



engines and today's driving



Some spark plugs are designed for high speeds, but...

"FIRES UP" AT ALL SPEEDS!

From Auto-Lite... a great new spark plug that solves dealers' biggest problems, opens up a vast new profitable market!

It had to come! **65% of all cars built in the last five years have overhead-valve engines.** Yet not until Auto-Lite developed the Power Tip had there been a spark plug completely "ignition-engineered" for these modern, high-compression, high-horsepower engines.

The Auto-Lite Resistor Spark Plug with Power Tip solves your greatest problem. Up until now you could never be sure what heat-range of spark plug to install for best results. "Hot" plugs were satisfactory for city driving but caused pre-ignition at higher highway speeds. "Cold" plugs worked well for highway driving but fouled easily at slower city speeds. Whichever one you used left you open to costly "come-backs."

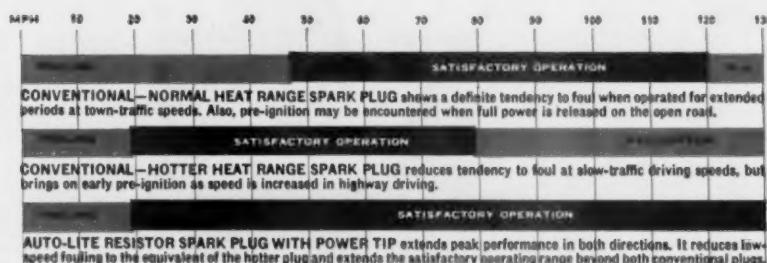
But revolutionary Power Tip is hot at low speeds, cool at high speeds—the only spark plug that operates at peak efficiency at all speeds! The Power Tip gets hot faster at low speeds to resist fouling. It's "in the thick" of combustion so deposits burn away clean. Yet it prevents danger of pre-ignition at high speeds because it gets full benefit of cooling intake gases. Thus, Power Tip eliminates heat-range guesswork... "fires up" modern engines for top performance and economy at all speeds.

5 reasons why Power Tip can increase your profits:

- 1 Power Tip is the *first and only* spark plug that works at peak efficiency at all speeds in all overhead-valve engines using 14 mm. spark plugs. Owners of these cars are immediate prospects.
- 2 Power Tip is specified as original equipment on many leading makes of our finest cars—enables you to take advantage of this huge ready-made market.
- 3 Power Tip eliminates guesswork, reduces profit-robbing "come-backs."
- 4 Power Tip increases customer satisfaction, hence increases your sale of other products and services.
- 5 Power Tip eliminates the necessity for carrying special hot and cold plugs for overhead-valve engines, gives you faster turnover and more profit.

It fits all these cars with overhead-valve engines using 14 mm. spark plugs... Buick, Cadillac, Chevrolet, Chrysler, DeSoto, Dodge, Ford, Hudson, Imperial, Lincoln, Mercury, Nash, Oldsmobile, Packard, Plymouth, Pontiac, Studebaker. It's *good business* to call your jobber for a supply of Auto-Lite Resistor Spark Plugs with Power Tip. Do it today!

ENGINEERING CHART SHOWS HOW ONLY POWER TIP DELIVERS TOP PERFORMANCE AND ECONOMY AT ALL SPEEDS!



It's the **POWER TIP**
that makes
the difference!



Ordinary Plug Tip New Power Tip

AUTO-LITE RESISTOR SPARK PLUG WITH POWER TIP

THE ELECTRIC AUTO-LITE COMPANY • Toledo 1, Ohio

In modern overhead-valve engines, you can't win the battle of combustion from the "sidelines." Projecting ceramic tip—the Power Tip—extends spark gap *inward* toward center of combustion chamber. Ignition takes place closer to heart of fuel mixture. Fuel burns more evenly and completely. In many cases, fuel mixture can be made leaner for better economy with no sacrifice in power or performance.



The rings that





make you bat 1.000

**You bat "a thousand"
with your customers
when your motor jobs
show immediate results**

... and immediate results are what you deliver to your customers with every Pedrick Formflex Chrome Ring job you do. The feel of "new-car" response, pep and power is instant.

Yes, you make a hit everytime you install Pedrick Formflex Chrome Rings. The secret is the "Equalizer." This exclusive feature of the Formflex ring provides an extraordinary flexibility which delivers soft, uniform pressure *all around the cylinder wall*. It insures a more perfect, longer-lasting seal, higher compression, and greater gas and oil economy, even in badly worn cylinders.

Only Pedrick has the "Equalizer." So, to bat 1.000 on your motor jobs, always install Pedrick Formflex Chrome Ring Sets.

DEPEND ON

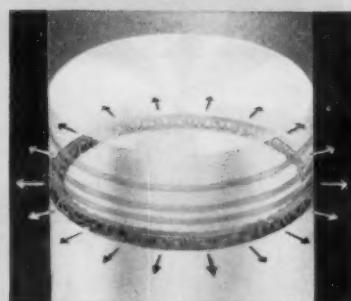
Pedrick

FOR THE RINGS
THAT MAKE YOU
LOOK GOOD TO
YOUR CUSTOMERS

WILKENING MANUFACTURING CO., Philadelphia 42, Pa.
IN CANADA: Wilkening Manufacturing Co. (Canada), Ltd., Toronto



The "Equalizer's" continuous contact and uniform pressure allow ring rails to be radially thinner, thus more flexible and more conformable.



EQUAL PRESSURE EVERYWHERE
MEANS A PERFECT SEAL



MR. REPAIRMAN

Be sure your



YOU can be the top brake service expert in your community.
Get all your brake service requirements from ONE source---Your **WAGNER** jobber!



WAGNER SHOE EXCHANGE SETS. Available "bonded-on" or "riveted-on" for all popular cars and light trucks with both standard and over-size lining thicknesses.



WAGNER LOCKHEED BRAKE PARTS. They cover every make and model of vehicle and include hard-to-find numbers not easily obtainable elsewhere.



WAGNER LOCKHEED HYDRAULIC BRAKE FLUID. Chemically balanced to function perfectly in all seasons and under all operating conditions.

Est.
1891

Wagner

*...the best known
name in brake service*

customers can stop in time!

when servicing brake systems... use genuine
Wagner® Lockheed
BRAKE FLUID

There's none better... None safer... The leader for 31 years...
Properly balanced chemically... Surpasses S. A. E.* specifications

Safe stop—or stark horror—often depends on the quality of the brake fluid in the brake system. Make sure your customers get the full protection of the world's leading brake fluid... Wagner Lockheed.

This fluid is compounded of finest ingredients and chemically balanced to permit it to withstand sub-zero temperatures without solidifying... extreme heat (generated from high speed stops and hard usage) without causing vapor lock... to prevent gummy residue, swelling of rubber parts, or corrosion of metal parts in the system... to mix with all other approved fluids... and to absorb a necessary amount of moisture.

Wagner Lockheed Brake Fluid is scientifically compounded to strictest quality control standards in world's largest and most modern plant devoted to the exclusive manufacture of hydraulic brake fluid. You can depend upon Wagner Quality because Wagner Products are used as original equipment by manufacturers of cars, trucks, buses, and trailers.

Wagner Lockheed Brake Fluids answer all service needs. 21B is for trucks, buses and cars where heavy duty type fluid is recommended or required by state law. Available from your Wagner Jobber in 12 oz., quart, gallon, 5-gallon, 30-gallon, and 54-gallon containers.

*Society of Automotive Engineers

BOOST YOUR PROFITS BY BECOMING A

WAGNER FRANCHISED DEALER



Wagner Electric Corporation

6498 PLYMOUTH AVE., ST. LOUIS 14, MO., U.S.A.

(Branches in principal cities in U.S. and in Canada)
Fill out and mail coupon for full facts on this profitable
program that's sweeping the country. No obligation.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY _____

ZONE _____ STATE _____



H56-2



NOW!
-- the "fastest"
and MOST COMPLETE
PUSH and PULL
BODY REPAIR SET!

-- it's the **NEW**
P-F[®] **-11 SPEED** **Midget**
"Push-n-Pull"
35 Piece
BODY and FENDER REPAIR SET
with **EZ-E-ON**
Attachments

\$14560

Eastern

— only

**NO OTHER BODY REPAIR EQUIPMENT
CAN DO SO MANY JOBS—SO FAST!**

Smart body men everywhere have been quick to realize what P-F SPEED MIDGET Body Repair Equipment can do to save time and money — thanks to its EZ-E-ON Tubing and Attachments. NOW — the SPEED MIDGET has been teamed up with the power and versatility of the P-F PULL KIT to give you the first and only COMPLETE "Push-n-Pull" set on the market. No other body repair equipment can do all the jobs this "Push-n-Pull" set can do — nor can any equipment do any of these jobs so well. This means LOWER COSTS and INCREASED PROFITS for the shop owner — MORE PRODUCTION with less hand work and GREATER EARNING CAPACITY for the body man.

**LOOK AT THESE FEATURES!
EVERYTHING YOU NEED FOR ALL "PUSH-PULL" WORK**

1. EZ-E-ON "PUSH-TWIST" Tubing and Attachments. $3\frac{1}{3}$ times faster and much stronger than threaded tubing.
2. SUPER-SPEED 4 TON JACK Only 30 strokes for full ram extension, vs. 60 and 70 for other jacks.
3. FASTEST PUMP — 6 strokes per inch of ram travel — Others take 12 and $15\frac{1}{2}$ strokes!
4. P-F ADJUSTABLE SPOON with 1 High Crown and 1 Low Crown Blade. — saves the use of several fixed angle spoons.
5. FAMOUS P-F PULL KIT with patented "Bite-Tite" multi-position clamps for all pull operations. Chain and clamps are more versatile and much faster than hooking up pull ram and assorted tubing to the right span.
6. PULL ADAPTER — for clamping or pulling operations with EZ-E-ON or any $\frac{3}{4}$ " threadless tubing.
7. 35 WORK SAVING PIECES — designed and engineered for specific operations.

**ALL FOR BETTER, FASTER WORK —
MORE PROFITS!**

Call your jobber today for a demonstration of this great NEW unit.

SEND for your copy of the new "7 STEPS FOLDER". Tells how to own your own Body Repair Tools and Modernize your Body Shop.



**Push! — Twist! — and it's on! —
with EZ-E-ON Attachments!**

**Save 70% "HOOK-UP" —
90% "TAKE DOWN" TIME!**



**BODY REPAIR TOOLS
and EQUIPMENT**

Automotive Division of
H. K. PORTER, INC., Somerville, Mass.

How "hot" is the Dodge D-500?

Mississippi Sheriff tests five makes of cars for speed and acceleration — orders three D-500's!



A report of this open competition by the Dodge District Manager of Hattiesburg, Mississippi

"The Hattiesburg, Mississippi dealer, Talbert Leigh, Inc., contacted the County Sheriff who was planning to add three new cars to his fleet.

"To prove performance superiority of the Dodge D-500 over any make of car, he asked the Sheriff to have all the local dealers bring their fastest cars (souped-up or otherwise) to the District Highway Patrol Headquarters to run against the D-500.

"The F_____ dealer brought a power-pack Interceptor with a high-speed rear end. The C_____ salesman brought a power-pack car he had boasted around town could outrun anything. Also on hand was a power-pack O_____ and a souped-up B_____. Two dealers declined the invitation.

"With the Sheriff and his deputies present and participating, our dealer proceeded to outrun everything there so badly you could hardly call it a race.

"Then he offered to let each one of them have a four block head start, and try it again. The C_____ salesman packed up and went home, and evidently everyone else had enough except the F_____ dealer in his Interceptor.

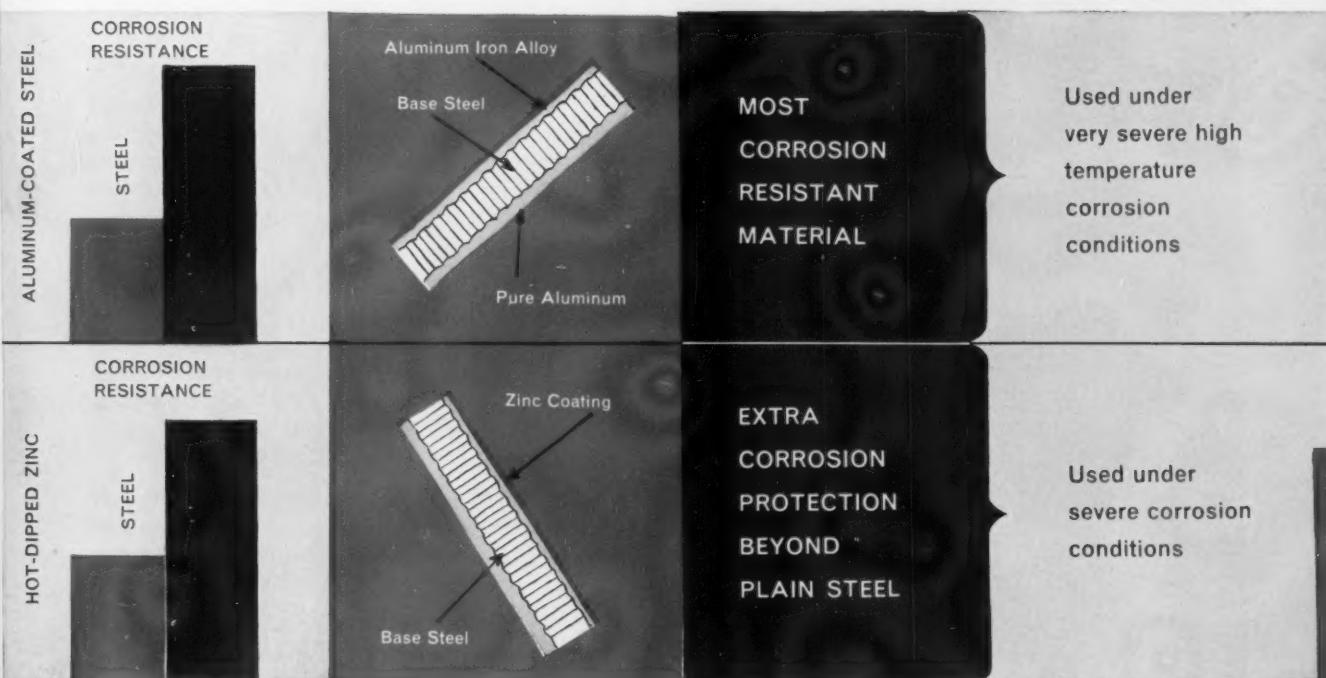
"He gave it a try with a four-block lead and the D-500 took him, with the Sheriff driving it this time. The Sheriff was so impressed he told our dealer he would buy three D-500's. He did."

DODGE D-500

America's Acceleration Champion

A standard production car available in all models. 260 hp. aircraft-type V-8 engine with 315 cubic inch displacement. 9.25 to 1 compression ratio. Bore 3.63 in., stroke 3.80 in. Special 12-inch center-plane brakes.

Walker "Precision Tuning" Brings You the Modern Answer to Corrosion!



Today's pattern of stop-and-go, short-trip driving, coupled with the trend to duals, has materially increased the *internal corrosion* problem of modern exhaust systems. It is not a problem that can be solved by mere weight or thickness of metals, or by dipping pre-selected mufflers in acid. The real answer to *internal corrosion*—the primary cause of muffler "wear out"—lies in the *right combination* of internal design to prevent the trapping of engine condensate in "condenser chambers," and the use of *special corrosion-resistant coated*

materials at critical points.

Over the years, Walker research has "corrosion tested" every practical available material. From this research Walker has selected the two materials adaptable to muffler production that have the greatest resistance to "engine condensate"—the combination of water and acids produced by the engine during the combustion process.

The two materials, illustrated in the chart above, are *aluminum coated steel* and *hot-dipped zinc-coated steel*.

Walker Special Coated Materials Have From 200% to 400% Greater Corrosion Resistance Than Plain Steel.

Because no muffler is stronger than its "weakest corrosion link," *the protection against corrosion cannot be confined to shells and heads alone.* It must include, when necessary, the use of special corrosion-resistant materials for partitions, tubes and inner shells as well.

In designing a Walker "Precision Tuned" Silencer, special coated materials are used *whenever and wherever necessary*—outside, where you can see it, and inside, where you can't. At times, all three basic materials—plain steel, aluminum coated steel, and hot-dipped, zinc-coated steel—are used in a single Walker "Precision Tuned" Silencer, depending upon the severity of the operating temperature and the corrosion problem.

Walker does not compromise with corrosion or make statements and comparisons designed to confuse the real issue. Walker "Precision Tuning" gives you the modern, accepted answer to corrosion—the *right combination* of internal design and special coated materials to assure the longest, most satisfactory muffler life possible within the normal pattern of driving.

WALKER

Precision Tuned

SILENCERS

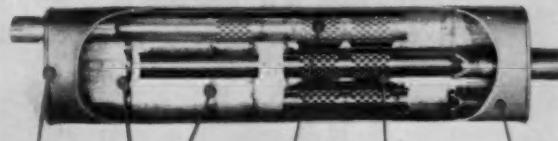
The Right Combination of All Things to Make A Truly Great Exhaust System



WALKER MANUFACTURING COMPANY OF WISCONSIN
RACINE, WISCONSIN

Exhaust Silencers • Jacks • Oil Filters

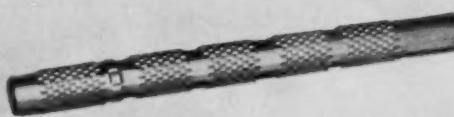
Here's where special coated materials are used for longer life in Walker "Precision Tuned" Silencers—inside and out, as required



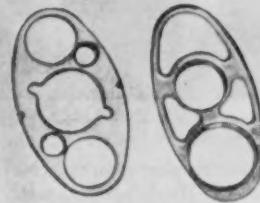
Headers Partitions Tubes Inner shell Outer shell



Aluminum-Coated Steel
Hot-Dipped, Zinc-Coated
Steel



Aluminum-Coated Steel



Aluminum-Coated Steel
Hot-Dipped, Zinc-Coated
Steel



Aluminum-Coated Steel
Hot-Dipped, Zinc-Coated
Steel

Hot-Dipped,
Zinc-Coated Steel



Walker "Precision Tuning" Uses the Right Combination of Coated Materials for Longer Life—OUTSIDE, Where You Can See It—and INSIDE, Where You Can't

Shells

Tubes

Partitions

Heads

Inner Shells

Blue Sunoco Again First Choice Of Auto Engineers!



**USED BY MORE
AUTO ENGINEERS
THAN ALL OTHER
PREMIUMS COMBINED!**

COMPARISON CHART

This is what automotive engineers reported after comparing New '56 Blue Sunoco with premium-priced gasolines in their own cars

93%	say New Hi-Test Blue Sunoco matches or excels "premiums" for overall performance	91%	say New Hi-Test Blue Sunoco matches or excels "premiums" for power and pick-up
85%	say New Blue Sunoco matches or excels "premiums" for anti-knock performance	86%	say New Hi-Test Blue Sunoco matches or excels "premiums" for miles per gallon

Again Blue Sunoco is first choice of auto engineers. And again Sun Oil advertising is hammering home this fact to increase Blue Sunoco gallonage. Another good reason why Blue Sunoco is the best-selling premium gasoline in its territory!

INTERESTED IN A SUNOCO DEALERSHIP?

One may be open in your territory. Call our local office now or write directly to: SUN OIL COMPANY, Philadelphia 3, Pa.



SUN OIL COMPANY, Philadelphia 3, Pa.

executive section Jobber

News Notes **From the Editors**

MEMA's 15th Financial Survey

FIVE PERCENT (410) of the wholesalers in the industry again cooperated with the Motor and Equipment Manufacturers Association to make the fifteenth consecutive survey of financial and operating ratios available.

ACCORDING TO THE REPORT, the uptrend in dollar volume of sales was resumed last year with a gain of 9.3 per cent. Earnings were satisfactory despite a narrower gross margin as greater supplies intensify competition.

THE P & L FIGURES GIVE FORCEFUL EXPRESSION to the necessity for increased efficiency as well as the good measure of success in this direction. Despite the effects of lower gross on net income yield only 31 wholesalers reported losses.

Teamwork in Fuel Injection

TWO COMPANIES HAVE JOINED UP TO PROMOTE a fuel injection system. Under a licensing agreement with American Bosch Arma Corp., developer of the system, Thompson Products, Inc. will make and sell the units in the after market.

IN ADDITION TO SELLING the units in this field, Thompson will also explore the original equipment market among automobile companies. Both firms will share tooling costs for the fuel injection equipment.

Midwest Show Officers Meet

AT A COMBINED MEETING OF THE OFFICERS, directors and committee members of the Midwest Automotive Trade Show, fifty-six directors representing Missouri, Illinois, Arkansas, Kentucky, Indiana, and Tennessee were selected and approved.

THE SHOW WILL BE HELD at Keil Auditorium in the heart of midtown St. Louis. Show dates are May 9 through 12, 1957 according to Joseph Haenny, general manager.

CHAIRMAN OF THE SPONSORING WHOLESALERS Committee, Al Kreutzer, reported that 152 wholesalers have signed as sponsors. The goal of 600 seems readily attainable.

MEWA Conventions Set

MOTOR AND EQUIPMENT WHOLESALERS Association will hold national conventions at Boston in conjunction with the New England Reg. Auto. Show next May and at Miami in April in connection with the Southeast Reg. Auto. Show.

ALSO, IT IS NOW DISCUSSING arrangements for MEWA cooperation with authorities of the Midwest Auto. Reg. Show at St. Louis, the Southwest Reg. Show at Dallas and the Pacific Auto. Show at Seattle, all of which will be held in early 1957.

Pacific Coast Line.....by Nate Shanedling

California Jobbing Group

ALTHOUGH THE CALIFORNIA Automotive Wholesalers Association is not yet a year old the organization has made a definite impact on the industry.

ITS MEMBERSHIP IS GROWING daily and during the past few months it has been extremely active in helping to eliminate some activities that were harmful to its membership--and the industry.

ASSOCIATION OFFICERS FEEL that a membership of more than 800 legitimate wholesalers will be acquired in the not too distant future.

Diversification

THE PROBLEM OF DIVERSIFICATION has been a long-standing one for automotive wholesalers. For years the average wholesaler has felt that his organization cannot handle--nor sell--any lines that are not truly automotive.

IN SACRAMENTO THE GERLINGER Motor Parts Co., an old-line jobbing firm, is doing a fine job of selling a line of motor boats.

THE OUTSTANDING EXAMPLE in Northern California is the move made by the Frank Edwards Co., central distributors for a number of leading automotive lines--with headquarters in San Francisco.

THE EDWARDS ORGANIZATION is going full blast with a new Division--one that handles fractional horse power motors and lawn mower parts. They do not handle a lawn mower line, but represent manufacturers of the parts.

Production Prices

SPECIAL DEALS BY MANUFACTURERS to engine rebuilders on a production basis are beginning to boomerang throughout California. Many wholesalers are asking "How Come?" when they find that their customers are being offered the same lines at a greatly reduced price by the rebuilders.

ALONG WITH THIS--it is reported--the rebuilders are going to industrial accounts "with sharp knives" on parts prices when bidding on machine shop work.

IN SOUTHERN CALIFORNIA some of the rebuilders are making up "rebuilders kits" of the merchandise they have purchased on a production basis and selling them to the retail trade at a ridiculously low price.

OPERATION JOBBER

Always Time to Tell Jobber Story

MANY jobbers are stepping up their advertising budgets in an all-out effort to regain some of the ground lost in the competitive battle that has been raging for replacement parts and accessories since the early forties. Prior to World War II, jobbers had been enjoying approximately 50 per cent of the replacement business; vehicle manufacturers had 30 per cent of the total and the balance was divided among the chains, retailers, and the oil companies.

Today, most authorities attribute to jobbers but 30 per cent of the market, hence the opportunity always for jobbers to take inventory of the great services they offer and to explain these services effectively.

To begin with, the large majority of jobbers *do not repair* cars, trucks, buses and other automotive units because they are, in the strictest sense, wholesalers. Even though they are in the business of serving automotive retailers and not competing with them, in recent years jobbers seemed complacent about shouting this message.

Stress Availability

Automotive jobbers are again telling the trade the timely story of AVAILABILITY—that they have large stocks of merchandise

for all makes and models when it was needed. They are featuring the indisputable fact that immediate service enables any retailer to handle practically any repair job and promise prompt delivery with confidence.

Servicing all vehicles and engines is the every day assignment of the automotive jobber. He is in business to aid all retailers giving fast, emergency service on all types and models of internal combustion engines. He stocks thousands of slow-moving items and in many cases is the only source for parts for older vehicles. A likely story for the jobber to use and those who are using it are getting in some good sales promotion licks.

Top Quality Products

High on the list of the sales arguments jobbers are beginning to use once more are sure-fire statements about highest quality products with national reputations. In short, jobbers are telling the trade that they sell the world's finest automotive products — parts, accessories, tools, supplies, shop equipment and other products.

In addition, jobbers are capitalizing on many other services they traditionally render such as offering credit when needed, tech-

nical information at all times and assistance on advertising and sales promotion to help their customers move products off of the shelves.

Trained Salesmen

Of the many services offered regularly by most all automotive jobbers, probably none is as important as the employment of trained salesmen who perform outstanding duties in serving the retail trade.

Most jobber machine shops are equipped to grind pistons, re-size bearings, fit pins, reline or exchange brake shoes and perform other mechanical services for the trade. Since the jobber sells this material and labor at wholesale to the trade, his customers make a fair re-sale profit.

While many aggressive independent jobbers have been selling and telling the trade why it's always profitable to buy from them, many others forget to tell this story.

Perhaps in the near future, automotive jobbers can reverse the trend that has gone against them for so many years (even in a rising market) and by the intelligent planting of seeds, good plowing and hard work, regain some of the lost ground that gets richer and richer each year.

signs of the times

AAC Reports Stock Check Sheet Survey

Substantial progress was reported at a recent meeting of Automotive Advertisers Council on the standardization of manufacturers' Stock Check Sheets for use by jobber salesmen in checking their customers' stocks.

According to AAC, a survey made among manufacturers earlier this year indicated that 75 per cent of the manufacturers would be willing to provide their wholesalers with a Stock Check Guide standardized as to format, size and punching. The size recommended by the Council is $6\frac{1}{2} \times 4$ in. and 6-hole punching for an inexpensive pocket binder.

Houdaille Purchases Wales-Strippit Corp.

Ralph F. Peo, president of Houdaille Industries, Inc., announces that Houdaille has purchased for cash the assets and it will continue the business of the Wales-Strippit Corporation of North Tonawanda, N. Y.

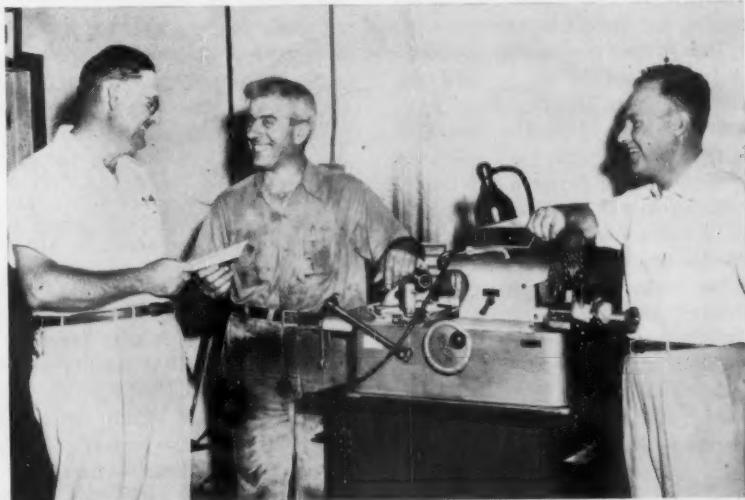
Wales-Strippit is the manufacturer of patented interchangeable punching tools as well as a line of specialized machine tools for working sheet metal.

6th in Air Freight

Auto parts and accessories ranked sixth in tonnage among all types of air freight flown by United Air Lines during the first half of 1956, according to a recent announcement by R. L. Mangold, manager of Cargo Sales.



TWO vice presidents and two regional managers of The Black & Decker Mfg. Company, Towson, Maryland, received 30-year Service Pins recently from Robert D. Black, President and Chairman of the Board and Alonzo G. Decker, Jr., Executive Vice President. Shown receiving their 30-year Service Pins from Mr. Black (L) and Mr. Decker (second from R) are: Glen H. Treslar, Regional Sales Manager, Northeast Region; John F. Spaulding, Vice President—General Sales Manager, Donald S. McKeracher, Canadian Sales Manager; Raymond G. Horner, Vice President—Sales Planning.



TONY TURCO (center) of the Central Auto and Truck Co. (Harlingen, Tex.) purchased the 150,000th SIOUX valve face grinding machine in the contest conducted by the manufacturer—Albertson & Company, Inc., Sioux City, Iowa. He won the machine as a gift in addition to a \$500 U. S. Savings Bond. J. B. Richardson (left) salesman for Motor Supply Co. in Harlingen sold the machine and won an award of \$1000 Bond. Motor supply manager W. Gray looks on.

Binks Spray School Posts Fall Classes

"International in attraction" describes the Binks Manufacturing Company Spray Painting School.

A recent class saw Japanese and Persian join the ranks of Binks students to learn the fine points of spray finishing from William Beacham, authority on spray painting.

Since its formal organization in 1949 more than 2600 students have attended the tuition-free school in Binks' Chicago plant.

Conducted every month of the year except July and August, the number of students per class is limited to insure individual attention to particular student problems, according to Beacham. There are four classes scheduled for the 1956 fall term: September 10 through 14, October 1 through 5, November 12 through 16 and December 3 through 7.

Although no tuition is charged for the classes, each student pays his transportation and expenses while in Chicago. For information or reservations for one of the fall sessions, write Binks Manufacturing Co., 3122 W. Carroll Street, Chicago 12, Ill.



IN JULY the Tole Company, Inc., of El Paso, Tex., moved into its new building at 2430 E. Yandell Blvd. According to company president William Tole, "we began our operation in the Wholesaler Automotive Parts business in 1946". The new building contains 5000 sq ft of floor space with considerable off-street customer parking area adjacent to the structure.

Automotive Wholesalers' Sales and Inventories

Bureau of the Census, Department of Commerce

Region	Per Cent Change				
	Sales		Inventories		
	May 1956 from May 1955	May 1956 from Apr. 1956	5 Mos. 1956 from 5 Mos. 1955	May 1956 from May 1955	May 1956 from Apr. 1956
Middle Atlantic	+21	+14	+16	+10	0
East North Central	+16	+5	+6	+11	+1
West North Central	+5	+1	+3	+4	-1
South Atlantic	+12	+12	+5	-4	-1
East South Central	+23	-1	+16	+5	+3
West South Central	+16	+5	+15	+5	+1
Mountain	+4	+4	+6	+1	+2
Pacific	+10	+3	+4	+16	-4
Entire United States...	+14	+7	+9	+5	+1

Indicators of Business Activity

These figures are based on latest thirty-day reports

	Latest Data	Month Before	Year Ago	Percentage Change from Month Ago	Change from Year Ago
PRODUCTION					
Motor Vehicles (Units)	500,000	570,486	767,182	-12.4	-34.8
Industrial—F. R. B. 1947-'49=100 (Adj.)	141	142	139	-.07	+1.4
SALES					
New Cars	530,000	560,014	681,372	-5.4	-22.2
Replacement Tires (Units)	5,979,635	5,760,754	5,361,078	+3.8	+11.5
Manufactures (\$ Millions)					
Durable Goods	\$13,787	\$13,519	\$13,322	+2.0	+3.5
Non-durable Goods	\$13,976	\$13,718	\$13,329	+1.9	+4.8
Department Stores, 1947-'49=100	123	122	114	+0.8	+7.9
GENERAL					
Consumers' Price Index, 1947-'49=100	115.4	114.9	114.2	+0.4	+1.1
Civilian Employment	66,503,000	65,238,000	64,016,000	+1.9	+3.9
Unemployment	2,927,000	2,608,000	2,679,000	+12.2	+9.2

Ohio State Holds Wholesaler Course

The automotive service industry was well represented on June 16 when fifteen wholesaler executives from NSPA member-firms graduated from the 1956 Wholesale Executive Management Course at Ohio State University, Columbus, Ohio. The NSPA "students" were part of a group of 60 business executives from ten of the major wholesale groups in the country, and attended through National Standard Parts Association's affiliation with the National Association of Wholesalers, which sponsored the Course.

Industry Meetings

Sept. 20-22—Automotive Parts Re-builders Association convention and Trade show, Edgewater Beach Hotel, Chicago, Ill.

Oct. 25-26—Automotive Wholesalers of Texas annual convention and booth conference, Statler-Hilton Hotel, Dallas, Texas.

Dec. 2-4—Third Annual Auto Trim Show, Sherman Hotel, Chicago.

Dec. 8-16—National Automobile Show, New Coliseum, New York.

Jan. 13, 1957—Chicago Auto Show, International Amphitheatre, Chicago, Ill.

Jan. 14-18—Annual Meeting, Society of Automotive Engineers, The Sheraton-Cadillac and Statler Hotels, Detroit, Mich.

Mar. 7-10—Pacific Automotive Show, Civic Auditorium, Seattle, Washington.

Apr. 4-7—Southwest Automotive Show, Automobile Bldg., Fair Park, Dallas, Texas.

Apr. 25-27—Southeast Automotive Show, Dinner Key Auditorium, Miami, Florida.

May 9-12—Midwest Automotive Show, Inc., Kiel Auditorium, St. Louis, Missouri.

May 23-26—New England Regional Automotive Show, Inc., Boston, Mass.

Braden Elected SW Auto Show President

At a meeting of the Board of Directors of the Southwest Automotive Show held recently in Houston, H. B. Braden, American Gear and Parts Company, Dallas,



GRADUATES of Ohio State's management course who are from wholesaler member-firms of the National Standard Parts Assn. are standing, from left to right: Robert R. Guthridge, Humboldt Supply Company, Eureka, Cal.; Robert L. Penharlow, Pen's Parts Service, Fredonia, N. Y.; George T. Smith, Jr., George Smith & Sons, Inc., Rockville Centre, N. Y.; Vernon C. Olcott, Red's Motor Parts, Allegan, Mich.; William P. Gates, Southern Auto Supply Company, Chattanooga, Tenn.; Luther N. Davis, Jr., Central Electric Company, Mobile, Ala.; Professor T. M. Beckman, Ohio State University; Sam H. Dunson, The Dunson Supply Company, Sidney, Ohio; Stuart W. Thoms, Lohse Automotive Service, Rock Island, Ill.; Jack Goldstein, Everett Ave. Auto Parts Co., Somerville, Mass.; Paul H. Bolton, National Association of Wholesalers; Professor James H. Davis, Ohio State University; Seated, l. to r., F. Ray Bryant, Paso Robles Auto Parts, Paso Robles, Cal.; Raymond G. Lohse, Lohse Automotive Service, Rock Island, Ill.; Arthur L. Younghans, New Kensington Auto Parts Co., New Kensington, Pa.; Julius Rubin, Everett Ave. Auto Parts Co., Somerville, Mass.; Delbert N. Mikelsen, Foster Auto Supply, Longview, Wash.; Howard Klein, Klein Auto Parts Company, Wilkes-Barre, Pa.

was elected President to head the 14th Show. This Show is scheduled to be held in the Automobile Building, Fair Park, Dallas, April 4-7, 1957.

Other officers elected are Eric Hyden, Fritz Keller Company, Ft.

Worth, 1st Vice President; Joe Owens, Owens Supply Company, Enid, Oklahoma, 2nd Vice President; W. A. Frazier, Hirsig-Frazier Company, Dallas, re-elected Treasurer and Helen E. Bumpus, Secretary of the Show.



IT'S GRADUATION time in 6 and 12 volt automobile analyzing and tune-up at Cohen Auto Parts (Erie, Pa.), one of 85 current Power-Tune courses conducted by Allen Electric and Equipment Co. in conjunction with Allen distributors. Allen reports that over 1000 students took course.

MEMA Issues Up-to-date Report on 410

SHOWN below are the results of the Motor and Equipment Manufacturers Association's annual survey of financial and operating ratios. Four hundred and ten wholesalers took part in the survey.

The uptrend in dollar volume was resumed last year with a gain of 9.3 per cent. Earnings were fairly satisfactory despite a narrower gross margin reflecting pressure on prices as greater supply of goods continued to intensify competition. The P & L figures give forceful expression to both the necessity for increased efficiency as well as the good measure of success achieved in this direction. Despite the evident effects of lower gross profit on net income yield, it is noteworthy that only 31 wholesalers reported losses as compared with 57 in the year previous (1954).

Wholesaler Financial Statements

COMPOSITE STATEMENT OF 410 AUTOMOTIVE JOBBERS (AVERAGED)

ASSETS	12/31/52	12/31/53	12/31/54	12/31/55
Cash.....	\$ 15,938	\$ 15,270	\$ 16,517	\$ 15,528
Receivables.....	32,499	33,052	34,242	38,717
Inventory.....	75,307	75,981	76,658	80,671
 Current Assets.....	 \$123,744	 \$124,303	 \$127,417	 \$134,918
Fixed Assets.....	33,508	34,922	36,492	37,994
 Total.....	 \$157,252	 \$159,225	 \$163,909	 \$172,910
 LIABILITIES				
Current Liabilities.....	\$ 32,057	\$ 31,280	\$ 34,190	\$ 39,990
Long Term Liabilities.....	4,305	4,672	4,018	4,547
Net Worth.....	120,890	123,273	125,701	128,373
 Total.....	 \$157,252	 \$159,225	 \$163,909	 \$172,910
 Working Capital.....	 \$ 91,687	 \$ 93,023	 \$ 93,227	 \$ 94,926
 Current Ratio.....	 386%	 397%	 373%	 337%
 TRADING OPERATIONS				
Sales.....	\$327,960	\$330,829	\$326,401	\$356,743
Cost of Goods Sold.....	234,645	236,576	232,621	259,213
Gross Profit.....	93,315	94,253	93,780	97,530
Expenses.....	77,333	84,661	87,032	90,145
Net Profit (After Taxes).....	12,705	10,785	8,290	6,967
Increase in Annual Sales.....	none	.87%	-1.0%	9.3%
Gross Profit on Sales.....	28.4%	28.5%	28.7%	27.3%
Expenses to Sales Ratio.....	23.6%	25.6%	26.7%	25.3%
Net Profit on Sales (After Tax Provisions, etc.).....	3.8%	3.3%	2.5%	2.0%
Inventory Turnover.....	3.1 times	3.1 times	3.0 times	3.2 times
Collection Period.....	36 days	36 days	38 days	39 days
Net Profit on Net Worth.....	10.4%	8.9%	6.6%	5.5%
Increase in Net Worth.....	3%	1.9%	2%	2.1%
Worth to Debt Ratio.....	3.3	3.4	3.3	2.9

Motor Age's Who's Who

Noble H. Hale has been appointed manager of advertising and sales promotion of McQuay-



Norris Manufacturing Co. He will make his headquarters in St. Louis.

Walter Clements has been appointed to the position of jobber sales manager for Littlefuse, Inc. **Andy M. Kalata** has become customer service manager for the same company.

Don McAnally has been promoted to manager of distributor sales for the L.O.F. Glass Fibers Company.

Captain Clifton G. Grimes, U. S. N. (Ret.), who had just retired as Deputy Chief of Naval Research has been named director of research at the Electric Storage Battery Co.



John P. Spain will assume the post of service sales manager of the Black & Decker Manufacturing Company's newly created service sales division on October 1, 1956.

Charles C. Tapscott, formerly vice-president of the McQuay-Norris Manufacturing Co., has joined



Arthur R. Mogge, Inc., Chicago and St. Louis advertising agency, as an account executive.

George A. Poe (left) has been named sales manager of Toledo Steel Products Company. **Carl L. Kahlert** (right), formerly in charge of company sales, has be-



come administrative manager in the replacement division of Thompson Products, Inc. **Jack Howlett** has become western regional sales manager and **Gerard Markey** is now central U. S. regional sales manager for Toledo Steel.

Henry Wehr, Jr., has been appointed sales promotion and advertising manager of the American Brakeblok Division of American Brake Shoe Company.

Wade W. Allen has been appointed president of the Allen Electric and Equipment Company. For the past nine years Mr. Allen has been a director of the company.

Samuel R. Gilbert, Jr., has been appointed personnel manager and chief industrial engineer of the Wilkening Manufacturing Company.

H. Charles Simons has become sales manager of the Eaton Manufacturing Company's Heater Division.

Russell E. MacKenzie has been appointed Executive Engineer for the automotive products section of the Bendix Products Division, Bendix Aviation Corporation.

John B. Shields has been appointed manager of training and business research for the John Wood Company, Bennett Pump Division.

Harry B. Davis has been elected to the position of vice president, general sales manager of Casco Products Corporation. He will



have the responsibility for sales in the appliance, drug, automotive accessory and car factory divisions.

Newscoop

*Nat'l Car Show Revived
A Standard Automatic
Modern Equipment Show
Dealer Credit Cards
Two New Frames
Pulverized Butts
Spiraling Labor Costs*

Ike Signs "Day in Court" Bill

PRESIDENT EISENHOWER HAS SIGNED INTO LAW, the National Automobile Dealer Association sponsored "Day in Court" (O'Mahoney-Celler) bill. The law provides recourse to court action for car dealers in disputes with manufacturers over compliance, termination or failure to renew franchises.

THE PRESIDENT SIGNED THE BILL with some reservations, indicating that ordinarily laws affecting contracts "would be considered an unwarranted intrusion by the Federal government into an area traditionally reserved to private enterprise."

National Automobile Show Revived

REPRESENTATIVES OF THE NATION'S automobile manufacturers met recently to draw for exhibition spaces in a national automobile show for the first time in sixteen years.

FIRST OF ITS KIND SINCE 1940, the show will be held December 8 through 16, in New York's recently completed Coliseum exhibition building, under the auspices of the Automobile Manufacturers Association. Prior to WWII, the show was an annual event.

MORE THAN 100 CORPORATION and divisional executives attended the recent meeting, which also included a general briefing of promotion, advertising, decoration, rules and other show plans. All American makes will be exhibited, according to AMA.

New Car Prices Won't Soar in '57

1957 CARS UNDOUBTEDLY WILL COST MORE than 1956's but reports of planned increases ranging from \$100 to \$200 may be exaggerated. Higher steel prices and other increased costs will be passed on but---

THE TOTAL INCREASE SHOULD NOT BE anywhere near the \$100 to \$200 figures being mentioned, unless certain equipment now optional is made standard. An \$8 per ton increase in steel cost would only add about \$16 to average car cost for steel.

Automatic to Be Standard—"Straight Stick" Optional?

ONE OF THE BIG THREE is reported considering making the automatic transmission standard equipment in its largest volume line. The division involved has a more advanced automatic drive coming next year which it might make optional at extra cost and offer the present automatic as standard equipment.

THERE ALSO IS SOME CONJECTURE in Detroit that "straight stick" transmissions soon may be an extra cost item, particularly in makes where the automatic accounts for a very high percentage of output.

Modern Equipment Show in Michigan

MICHIGAN AUTOMOTIVE MAINTENANCE ASSN. is considering plans for an annual equipment show which would be tied in with the regular meeting held in Detroit each year.

WHILE PLANS FOR THE SHOW have not been finalized, the group expects to have a program ready for the November meeting. Local distributors probably would participate in the show, and the objective would be to stimulate interest in modern shop equipment and sales techniques.

"Wife-Guard" Crash Pad

AN INTERESTING INNOVATION IN SAFETY crash pads for cars is being explored by two of the Big Three car companies. It is a padded "apron" which is hinged to the instrument panel in front of the "death seat."

IT SWINGS OUT OVER THE LAP OF THE OCCUPANT, protruding about nine inches from the dash. When not in use, it is swung above the windshield. The crash pad is called the "Wife-guard."

Bumper Lights

SEALED BEAM LAMPS INTEGRATED into front bumpers are under study. These dual lights, which would also serve as fog lamps, would be in addition to headlights located in the grille or fenders.

Credit Cards for Dealers

DODGE REPORTS GOOD ACCEPTANCE from dealers on a credit card promotion offered by the factory to stimulate parts and service business. Extension of credit and collection is entirely the dealer's responsibility.

DODGE SUPPLIES THE DEALERS with the cards, imprinted with the dealer's name, for distribution to customers whom the dealer considers satisfactory credit risks.

Production Dribbles in to Changeover

AUTOMOBILE PRODUCTION THIS MONTH AND NEXT will be a dribble as manufacturers prepare for 1957 changeovers. Total for the two months probably will be under 600,000. July (output just short of 450,000) was the first month since March to show a gain over the previous 30 days.

Corvette Aims to Please

CHEVROLET IS DEVELOPING an improved four-speed synchromesh transmission for the Corvette. It will answer criticism of some sport car fans who insist that a true sports car should have the straight stick type transmission rather than an automatic.

GM Dealers to Continue Buying UMS

GENERAL MOTORS CAR DEALERS will continue to buy UMS parts direct from UMS or their own division after the GM parts wholesaling program on engine and chassis parts terminates at the end of next year.

THEY ALSO WILL CONTINUE to get the override on all wholesale business. There had been some confusion as to whether car dealers would be able to buy from UMS after the program ends.

Two New Car Frames Planned for '57

TWO INTERESTING TYPES OF AUTOMOBILE FRAMES will appear on 1957 models. One is an X-type which permits a lower floor. The other is "cruciform," which has a short heavy center rail with two members running out in a V from each end. It is said to have great resistance to torsional forces.

Pulverized Butts

STRICTLY IN THE GIMMICK LINE, but interesting, is a report that one high-priced car maker is considering an ash tray built on the garbage disposal principle.

CIGAR AND CIGARET BUTTS, matches, and other debris would be pulverized and dumped on the ground beneath the car. Such a device would kill the old gag about trading in the car when the ash trays are full.

Spiraling Labor Costs Hit Large and Small

DEMANDS BY LABOR FOR HIGHER WAGES and other benefits are not confined to big industries. Some repair shops, striving to keep abreast of growing competition in their areas, are finding it difficult to operate profitably as material costs spiral and employes continue to make unexpected demands on owners.

BOB FERGUSON HYDRO-METHOD COLLISION SHOP, largest independent body shop in Flint, Mich., has been turning out an annual volume exceeding \$100,000, recently decided to shut down its operations until next year following demands by its workers for higher wages.

Washington Wire by Ray M. Stroupe



Retailers Exempt from M W Law

FEDERAL MINIMUM WAGE LAW EXEMPTION for the automotive retail trade is finally decided on by the government. Most sales of cars, parts, accessories, servicing, and repair work will be considered exempt retailing.

BUT SELLING FOR RESALE or under formal bid terms will not meet the test for exemption. Neither will sales of special heavy bodies, fleet sales, or servicing and repair work under a fleet contract.

New Tax Rulings

THE GOVERNMENT HAS ISSUED three new tax rulings affecting factory sales of automotive products. In separate rulings, the Internal Revenue Service says that manufacturer's excise taxes:

1. DO NOT APPLY TO SEPARATE charges made by an automobile manufacturer to its dealers for servicing automobiles delivered by the manufacturer directly to the dealer's customers.
2. MUST BE COLLECTED ON SALES of seat covers made of plastic, terrycloth, corduroy, or similar material. 3. Do not apply to rear seat radio speakers.

No Tax on Contract Towing Charges

SERVICE CENTER OPERATORS who handle automobile towing jobs under police orders should note that the Federal transportation tax need no longer be collected on towing charges.

INTERNAL REVENUE SERVICE makes this decision and says it is not affected by the fact that the car owner pays the towing fee.

TOWING COVERED BY THE IRS RULING concerns cars wrecked, abandoned, or illegally parked. Contracts for this work are let by a city or county.

"One for the Road"

LOW-GRADE GASOLINE COULD USE A DASH of alcohol made from grain, two congressmen from the Midwest suggest. Sen. Mundt (R., S. D.), and Rep. Jensen (R., Ia.), recommend mixing alcohol and gasoline to help get rid of surplus government grain.

THIS MIXTURE, THEY SAY, would give better engine performance. A bill sponsored by the congressmen in July would bar the sale of motor fuel not containing at least 5 per cent grain alcohol.

Selling Like Hotcakes

BOOTH SPACE FOR COMPANIES with products to display at the 1957 National Automobile Dealers Equipment Exhibition is selling at record speed, NADA officials report. So far, exhibitors have bought more than half the space available.

SERVICE CLINICS ARE TO BE SET UP in connection with the exhibition. The show will be held with the NADA convention at the San Francisco civic auditorium next January 26-30.

Technical Training by Chrysler

CHRYSLER'S MODERN 85,000 SQ FT Technical Service Training Center at Detroit now is in operation. All vehicle divisions have their own rooms fully equipped for training mechanics. The Central Service Section also has complete facilities for training, flat rate studies, and developing repair techniques.

MECHANICS FROM FLEETS using Chrysler products and from independent repair shops also will be eligible to attend the Center upon application through MoPar distributors. The Chrysler Training Center system probably will be extended to other cities eventually.

Safety by Design

CONGRESS WILL SET SAFETY STANDARDS for automobile design and will force manufacturers to comply with them unless the car makers do the job themselves, Sen. Paul Douglas, (D. Ill.), warns. Some 2,960 persons were killed in automobile accidents in April.

IF THAT RATE CONTINUES, the death toll will reach a record 42,000 in 1956. Studies should be made of highway and car design, highway laws and enforcement, and the psychology of driving, safety officials say.

S-D Day May be in Spring

LEADERS OF THE PRESIDENT'S COMMITTEE for Traffic Safety are in favor of holding the next national safe driving day (S-D Day) in 1957. During the past two years, S-D Day has been in December, but the next may be in the spring.

Report to Our Readers



The Man On The MOTOR AGE Cover

WE have suspended, for one month only, the contest for our MOTOR AGE covers. As most of you know, the original painting of the MOTOR AGE cover, a large 16½ by 22 inch full color drawing, has been awarded each month for the last year and a half to the subscriber who wrote the best letter on "What I like most in this (current) issue of MOTOR AGE." Returns have been stimulating in guiding our editors in search for more and better editorial material.

Yet, this month we've called the contest off. This month only, that is. There's a reason and we think the whole body of our readers will agree with us.

At the General Motors Motorama this past January, we met an old friend and reader of MOTOR AGE. He was Morton E. Bushong, a Pontiac dealer in Bywood, Upper Darby, Pa.

"Bush," as all of his friends knew him, was a leadership-type car dealer and was a strong sponsor of Sunday closing. Fact is, he kept a sign posted in his show room advising his customers and the public at large that he and his people were members of the community and that they, too, needed Sunday for rest, relaxation and meditation.

Asked If He'd Pose

We asked "Bush" if he would pose for the cover of MOTOR AGE with his Sunday closing sign. He said he sure would.

Now that was January 18 of this year. On February 20, Morton E. Bushong died. He was never able to pose for the painting. But his

spirit and character has been re-created by our cover artist. And it is published in the memory of a man who put the interest of his employees, yes, the interest of his fellow man, above and beyond his own.

"Bush" came into this business after working as a farm equipment salesman. He once told this writer his philosophy in selling. It was taught to him when he was selling plows. "Remember," young Bushong was told, "that in selling

plows—it's ninety per cent the man and ten per cent the plow." Ninety per cent the character and the ability and the honesty of the man and ten per cent the product he was selling.

He used the same philosophy in selling cars. He was president of the Pontiac dealers in his area, president of the Delaware County Automobile Dealers Assn. and an officer of the Pennsylvania Automotive Assn.

Bushong Pontiac carries on today with Robert (Bud) Register as president and Clifton (Clif) Cage, longtime service manager, as vice-president. To them and to his twenty other employees, MOTOR AGE is proud to present the August issue's cover in memory of the man who was one hundred per cent character and who believed one hundred per cent in his product as well.

Faithfully yours,

Frank P. Tighe
EDITOR



BEAUTY AND THE BEAST — Illinois beauty queen Lois Conway perches on one of the unusual racing entries—"beast" in Drag Racing slang—being built for the Automobile Timing Assn. of America's 3rd annual World Series of Drag Racing. Lois holds one of the trophies to be awarded at event being held Aug. 22-26, Lawrenceville, Ill.

DRINK SOFT, DRIVE SAFE—Miss Jackie Spicer, "Miss Safe-Driving", suggests a sure-fire way for safe driving on the Labor Day week-end. Thirsty holiday motorists can drink all the canned soft drinks they want and still maintain a steady hand on the wheel. "Make that stirrup-cup one-for-the-road in ginger ale, root beer, cola, or the like."





ABOVE—Gil D'Andrea, director of design of Bassons Industries Corp., drives his newest design — the Bassons' Star—for its first run. The vehicle has a plastic body on a three-wheel chassis, and has a cruising speed of 40 mph with top speed about 70 mph. Vehicle weighs 400 lbs.

BEATING THE HEAT ON THE BEAT—One way to beat the heat when heat spells strike while directing traffic is to avail one's self of a cool tub of water. At right, a patrolman from a city in Iowa—where the thermometer can sometimes soar—shows the 'cool tub method' for comfort.



BELOW—Bobby Unser of Albuquerque, N. M., grins happily after winning the July Pike's Peak Hill Climb in record time of 14 minutes and 27 seconds. Bobby shaved two seconds off the mark set last year by Bob Finney of Colorado Springs who placed 2nd in this year's race.



Retail and Service Exemption Clarified

An official position on how the retail and service exemption under the Fair Labor Standards Act applies to the automotive trade was adopted recently by Newell Brown, Administrator of the U. S. Labor Department's Wage and Hour and Public Contracts Divisions. His action was in the form of an amendment to Part 779, Code of Federal Regulations (Interpretative Bulletin on Retail and Service Exemptions).

The Act exempts from both its minimum wage and overtime provisions, all employees employed by an establishment which makes more than 50 per cent of its sales within the State and can show that at least 75 per cent of its total annual dollar volume of sales consists of sales which are not for resale and are recognized as retail sales in the particular industry.

Applying these tests for exemption, Brown determined that all sales of automobiles, trucks, automobile parts, accessories, servicing and repair work will be considered retail except the following: (1) sales for resale, (2) sales made pursuant to a formal invitation to bid, (3) fleet sales, (4) sales of certain types of specialized heavy motor vehicles or bodies and (5) sales of servicing and repair work performed under a fleet maintenance arrangement below the prevailing retail price.

Two Firms Team-Up On Fuel Injection

A licensing agreement to further develop, promote, and subsequently manufacture an automobile fuel injection system was announced recently by American Bosch Arma Corporation and Thompson Products, Incorporated.



WINNER OF THE MAY COVER CONTEST was Harold Green, Jr., owner of the Green Body Shop at 415 North Walnut St., Green Island, Neb. Harold poses with the artist's original painting of the May cover of **MOTOR AGE** that he received for sending in the prize-winning letter. For this current month—August—there will be no Cover Contest. The interesting story behind the painting of the August cover of **MOTOR AGE** and why there is no contest this month may be found in Editor Frank Tighe's "Report to Our Readers".

In a joint announcement, Charles W. Perelle, president of American Bosch Arma, and J. D. Wright, president and general manager of Thompson Products of Cleveland, said the two veteran

automobile equipment manufacturers will work together in perfecting fuel injection. Thompson Products will also manufacture and market the fuel injection system, under the licensing pact.

1956 RETAIL CAR SALES BY PRICE GROUPS*

Price Group	Number of Cars					
	May		1955		Five Months	
	1956	% of Total	1955	% of Total	1956	% of Total
Under \$2,000	107,827	19.49	360,808	54.89	473,721	18.83
\$2,001 to \$2,500	289,280	52.40	295,872	31.34	1,383,257	54.97
\$2,501 to \$3,500	132,860	24.06	71,635	10.80	584,569	22.04
Over \$3,500	22,378	4.05	18,880	2.87	104,809	4.16
Total	532,145	100.00	656,975	100.00	2,510,156	100.00
					2,848,756	100.00

Dollar Volume of Sales

Price Group	May						Five Months					
	1956		1955		1956		1955		1956		1955	
	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total
Under \$2,000	\$ 21,696,541	16.35	\$ 683,916,663	47.41	\$ 925,957,799	15.72	\$ 2,909,595,138	46.19				
\$2,001 to \$2,500	621,240,984	47.97	480,121,766	33.28	2,982,273,403	50.57	2,088,734,036	33.16				
\$2,501 to \$3,500	365,105,253	28.20	202,135,622	14.01	1,538,889,400	26.12	951,506,150	15.10				
Over \$3,500	96,833,717	7.48	76,465,690	5.30	447,022,040	7.59	349,634,908	5.55				
Total	\$1,294,876,495	100.00	\$1,442,639,740	100.00	\$5,892,142,642	100.00	\$6,299,670,231	100.00				

*—Calculated on basis of new car registrations, as reported by R. L. Polk & Co., in conjunction with advertised delivered price at factory of four door sedan or equivalent model. Does not include transportation charges or extra equipment.

†—New registrations of American made cars only. Does not include imported foreign cars.

AMC Names F. Adams to Advertising Post

Appointment of Fred W. Adams to the new position of director of automotive advertising and merchandising of American Motors Corporation was announced recently by Roy Abernethy, vice-president in charge of distribution and marketing.

In his new position, Adams will



FRED W. ADAMS

direct all automotive advertising, sales promotion and merchandising activities of American Motors, coordinating the separate Rambler, Nash and Hudson advertising functions, Abernethy said.

AAA Contest Board Offers Test Service

The American Automobile Association has announced that its Contest Board under chairman J. Edward Schipper is setting up a testing procedure to test and certify automotive products.

In an article published by the AAA, Schipper said that the "Contest Board acts as a liaison between the industry and the motorist. It stands ready to offer the manufacturer a chance to place in the hands of the Contest Board, representing the motorists of the country, new products for test."

New Posts at GMC

The Board of Directors of General Motors at a recent meeting elected Edward N. Cole and Semon E. Knudsen vice presidents of the corporation. Cole and Knudsen also were elected members of the Administration Committee.

Also, in a number of executive changes announced recently by Harlow H. Curtice, president of General Motors, Cole was named general manager of the Chevrolet Motor Division and Knudsen became general manager of the Pontiac Motor Division.



Among those in attendance at recent Cleveland meeting to discuss plans for forming a Cleveland chapter of the Independent Garage Owners of Ohio were: (left to right) Charles Boland, pres. of Cleveland Wholesalers Assn.; Harold Grindle, secretary-treasurer of IGO of Ohio; John Geletka of Rieth Automotive Supply Co.; Ben Dieterich, since elected pres. of Cleveland chapter IGO; Paul Wilson, v. p. of IGO of America; Frank Hornyak, pres. of IGO of Ohio; Ollie Rideout, Ray Anderson and Erv Susor—all of Toledo IGO.

Engineering Highlights



by Joseph Geschelin
Engineering Editor

JUDGING by current events our industry will be approaching a time of serious decision within the next ten years. The question gripping the attention of motor car producers and their host of suppliers is this: will the gas turbine or free piston-turbine combination become a practical, economical powerplant by 1965?

If we judge by the flow of publicity material, the present reciprocating engine is on the way out. If we listen to engine designers, they are not so sure. In fact, some top engine designers are not too sure that the V-8 engine is going to be replaced by either of the new powerplants.

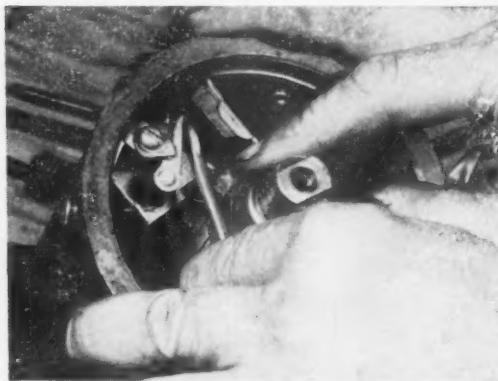
Meanwhile many large organizations are wondering. For example, what is the future for piston rings, valves, carburetors and fuel injection, spark plugs, and the like? What about the whole complex petroleum refining picture—fuels, lubricants, catalysts, additives? What will be the effect upon antifreeze materials if the coming powerplant is air-cooled? What will happen to radiators and water pumps?

The catalog of suppliers that might be affected by a radical

(Continued on page 74)



Remove the end plate by lightly tapping with a soft hammer. Plate is made of aluminum.

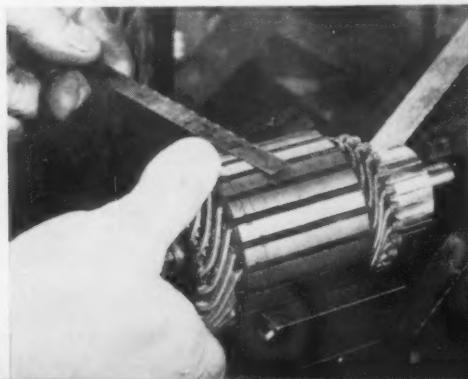


Before removing armature, push up brush arms and slide brush back of arm to hold the brushes firm.

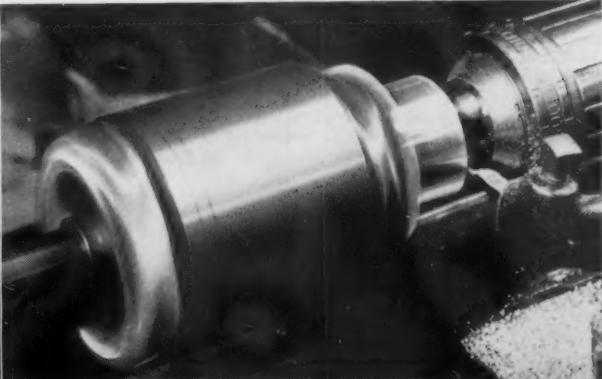


Examine the brush lead wire carefully at the point indicated by the pencil tip for breaks.

The hack saw blade is here being used to test the armature while it is in place on a growler.



Cutting the commutator in a lathe. A series of light cuts usually makes a smoother job.



Servicing

No new servicing problems

As far as servicing is concerned, the new Auto-Lite generator differs from its predecessor in that the brushes cannot be reached or renewed without removal of the end-plate. In overhauling the generator the following procedures may be observed:

After making the routine tests to find out if the generator is really at fault, remove the generator from the car for bench disassembly and testing. The removal is done by unfastening the two $\frac{1}{4}$ inch bolts that hold the end-plates together. Tap off end-plate and slide out armature and pulley.

Check field coil windings with a test lamp. Position the field lead in a position so that it can't touch the field frame. Place one of the test prods on the "F" generator terminal post and the other prod on the field frame. Test lamp should not light. If the test lamp does light, the "F" terminal post

Auto-Lite's New Generator

have been created by the fact that this model has its brushes encased in the housing

or the field windings are grounded. If a field tests grounded, the field leads to the terminal posts must be unsoldered and the posts tested separately and corrections made as required.

Grounded Armature Post Test

Place the test light prod on the "A" terminal post and the other prod against the field frame. The lamp should not light. If lamp does light the "A" terminal post insulation is defective. Place one end of the test prods on the "F" terminal post and the other on the disconnected field lead. The test lamp should light. If the test lamp does not light, the field windings are open-circuited. Check for faulty connection where the two field coils are joined together. A generator with open-circuited field coils will not generate more than a few volts. Testing the brush holder insulator: Place one test prod on the insulated brush holder and the other test prod on the generator and frame. The test light should not light. If it does the brush holder insulation is faulty and the brush holder should be replaced.

Testing the Armature

The armature should be checked for mechanical defects such as a worn or bent shaft, worn

commutator, scored core laminations or loose wires. Make certain that wires are correctly staked and soldered to the commutator. Resolder if necessary, being careful not to short between the bars. Set armature in growler and with test prods test the armature for grounds by touching the shaft with one prod and each commutator bar in turn with the other prod.

Discard the armature if it is grounded as indicated by the test lamp lighting. If the commutator is rough, burned or out-of-round or if the mica extends above the surface of copper it should be turned in a lathe. Mount the armature by its bearing seats and take light cuts until the commutator is completely cleaned up. Remove all burrs with double O or triple O sandpaper.

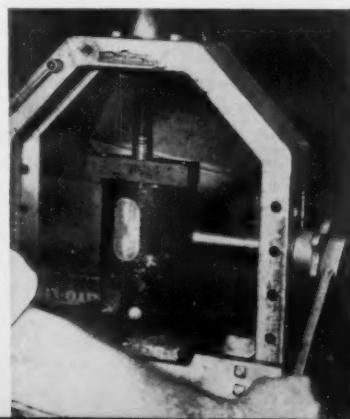
Then undercut the mica segments to a depth of $1/32$ or $3/64$ of an inch. Care should be taken to remove all the mica without making the slot excessively wide. Then remove all burrs with double O or triple O sandpaper. The armature should then be checked on a growler for shorts by holding a thin steel strip on the core and the armature rotated slowly. If the steel strip becomes magnetized and vibrates, a short is present. In this case, the

(Continued on page 82)

Here shown in operation is a special tool that is used for undercutting commutator mica.



Shown in operation is a special arbor for the removal of field screws.





Service Plays Vital Role in Six Point Sales System

**Chicago dealer finds Service Department helps keep
in contact with past customers for repeat car sales**

THAT sound sales methods backed by an efficient Service Dept. can improve volume is ably demonstrated by Robert W. Russell of Packard on La Salle, Chicago. While profit and volume are not completely interchangeable terms, Russell is assuredly realizing a profit from his increasing volume.

Like dealers the country over, Russell believes in the level-headed approach to merchandising and his advertising reflects his own calm assurance that the "buyer gets precisely what he pays for."

Russell's techniques can be summed up as a "6 point sales plan." The six points—incorporating techniques practiced by many other dealers and yet refined to his own individual needs—include:

Service Dept. Importance

1. The firm stays in touch with past customers. The chief way to do this is through service, and Russell makes every effort to make the service department efficient and to put service on a personal basis. For example, each serviceman has



Robert W. Russell of Packard on LaSalle, Chicago.

his own customers. This is established at the first call, the serviceman gets to know his customer by name and to know his likes and dislikes, and this makes for more efficient, friendly service on a man-to-man basis. It also means more service is sold, for the serviceman gets to know what things to suggest to his customer.

Then, after a couple of years, the serviceman, now a friend, can start suggesting trading in on a new car. This is a very effective way to get a deal started, Russell has found, and the serviceman gets paid a bonus for each of his customers who do trade.

In the service office, postcards are sent out to customers on a 30-day basis if they have not been in for service during that period. These are signed by the serviceman who takes care of the customer's car.

The result of this is that 60 per cent of the sales are to former customers.

2. An adequate sales force, well schooled on the type of merchandising the dealer wants.

The number, Russell feels, must be based on past annual sales patterns plus expectations for the current year. Based on this formula, Russell's 1956 objective is 60 new cars per month at the rate of six cars per salesman. With fewer salesmen the pace, he believes, would become too frantic for effective selling in the quality class and the standards of salesmanship and attention to the individual customers would deteriorate. A couple of extra salesmen would have the same end result though by a different route, causing salesmen possibly to sharpen their methods in a way that would hurt morale all around. Similarly, an unrealistic sales objective would have the effect of over-staffing and would probably be at the expense of company profits and salesmen's earnings and thus would defeat orderly growth from year to year.

Checks Complete Background

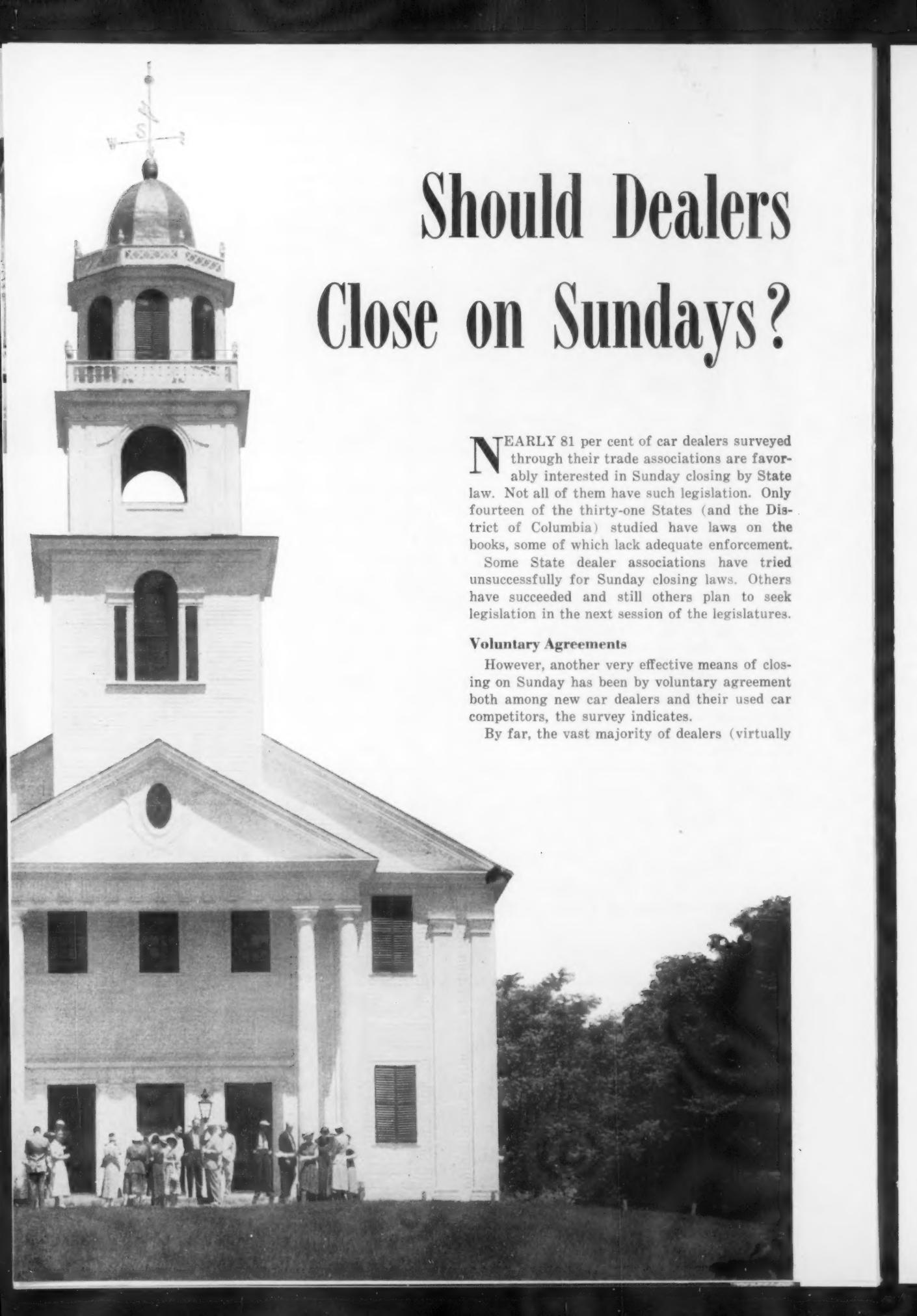
Insuring the quality of salesmen is a matter of careful checking and sound evaluation on an individual basis. Russell checks the complete background of each of his men before hiring. He chooses his men, for the most part, from the automotive or related fields, with special attention to the sales methods of past employers and to the attitude of the individual salesman toward these methods. One of his main concerns here is that the salesman is one of the foremost emissaries of the brand name, and it would be an error to hire a man that might taint that name in any phase of his performance.

Point No. 3: A good compensation plan for salesmen. Russell pays a monthly guarantee against commission, with a flat commission on each car. But in the give-and-take over trades, the salesman can see on each car the regular list price plus a coded price which represents the lowest price that can be accepted for that car. The salesman is able to make an extra percentage on the amount he gets over that coded

(Continued on page 95)

Sales meetings in the mornings is another point in six-point sales system.





Should Dealers Close on Sundays?

NEARLY 81 per cent of car dealers surveyed through their trade associations are favorably interested in Sunday closing by State law. Not all of them have such legislation. Only fourteen of the thirty-one States (and the District of Columbia) studied have laws on the books, some of which lack adequate enforcement.

Some State dealer associations have tried unsuccessfully for Sunday closing laws. Others have succeeded and still others plan to seek legislation in the next session of the legislatures.

Voluntary Agreements

However, another very effective means of closing on Sunday has been by voluntary agreement both among new car dealers and their used car competitors, the survey indicates.

By far, the vast majority of dealers (virtually

A report on the findings of the nationwide survey by Motor Age of the progress being made by law and by voluntary agreement on Sunday Closing

By Frank P. Tighe—Editor, Motor Age

100 per cent of those not affected by state law or local ordinance) have joined in mutual agreement to close on Sundays.

North Carolina has no law but no problem relating to Sunday closing either. Local communities often have local ordinances which require Sunday closing. "There are often no regulations but by general practice, few places of business stay open on Sunday," writes Mrs. Bessie B. Ballentine, executive secretary of NCADA.

In Vermont, there is nothing in the Public Statutes requiring car dealers to close on Sun-

days. Some communities have local ordinances, but they are very few in number. Most Vermont dealers are open for limited hours on Sunday and a few close entirely.

"The matter is not a serious problem as yet," writes I. E. Edwards, executive secretary of VADA, "although certain communities are becoming interested in the situation with the result that a few of the larger towns have held meetings of all retailers to discuss the situation."

In Delaware, dealers in the metropolitan area
(Continued on page 122)

STATE	SUNDAY CLOSING LAW	COMMENT
Arizona	No	Phoenix Closed by agreement
Arkansas	No	Little Rock considering
California	No	California generally closed by agreement
Colorado	Yes	Law upheld in lower court, now in Supreme Court
Delaware	No	Metropolitan dealers evenly divided. Rural dealers closed
Dist. of Col.	No	Closed voluntarily
Florida	Yes	But enforcement problematical
Georgia	No	Atlanta dealers closed. Generally throughout State
Illinois	No	Chicago ordinance pending—Many cities closed by agreement
Idaho	No	
Indiana	No	Planning for 57 Indiana legislature
Kentucky	Yes	Not enforced. Voluntary closing in some places
Louisiana	No	Majority of dealers not in favor
Maryland	Yes	Effective generally speaking
Massachusetts	Yes	Compliance good
Michigan	Yes	Enacted in 1953
Minnesota	No	Minneapolis and St. Paul closed by ordinance
Missouri	Yes	Not strictly enforced—St. Louis closed—Kansas City open
New Jersey	Yes	Lower court held it unconstitutional. Ruling being appealed
New Mexico	No	Most dealers close voluntarily
New York	Yes	Enforcement reported GOOD
Ohio	No	Akron, Cleveland, Canton, Toledo by agreement. Cincinnati and Dayton by ordinance
Pennsylvania	No	Dealers voted to ask next Legislature for law
S. Carolina	Yes	Dealers do not operate on Sunday throughout State
S. Dakota	No	
Tennessee	Yes	Antiquated "blue law." Nashville by ordinance
Texas	Yes	But not enforced. Houston closed
Utah	No	Salt Lake City closed by ordinance
Vermont	No	Most dealers open limited hours
Virginia	Yes	Strict Sunday closing
Washington	Yes	Law not enforced. Spokane has ordinance
Wisconsin	No	Milwaukee closed by ordinance

SERVICE: A Big Plus to Truck Sales

**I. B. Rosman, president of Mineola Mack
Distributors, points out the importance of
fully equipping truck service departments**

THE successful truck sales distributor must have a good service department as an integral part of his organization. Without it, the efforts of even the best salesman will fail in re-selling the customer—or even in keeping him as a parts and service purchaser.

"Down Time" is one of the greatest factors in increasing the operating costs of the trucking industry. A truck that won't run costs a company a day's earning power. That contractor who has a deadline to meet, or that over-the-road operator who has a load to deliver without his own truck available, must then lease a truck so that contractual obligations will be met.

So that, besides losing a day's earning power, "Down Time" means an additional cost due to paying someone else profit while his own overhead expenses go on.

The importance of a good shop may better be illustrated by a conversation held with a new customer.

He had changed his operation, moving from the light-duty into the heavy-duty truck field. He didn't quibble about price on the more expensive, larger truck and was quite frank in saying that he had not even asked for more competitive prices before placing his first order with our company.

(Continued on page 104)



At left: Article's author, I. B. Rosman, stands by the service entrance. Note ample room for storage and for inspection.



At right: View of one of the sections of the service area. Note lift equipment and press for pressure operations.

Octane for the Asking

Through the use of two underground storage tanks, five grades of motor fuel are being offered to the motoring public in Florida

GASOLINE of over 100 octane number is making its first appearance at Florida service stations in connection with an experiment being conducted by the Sun Oil Company. The company is testing a new way of retailing gasoline that it says offers motorists an opportunity to buy and pay for only the quality they need.

The 100 octane plus motor fuel tops a series of five grades, giving a wide choice in meeting the needs of particular engines. The new system is being tried out at the firm's service stations throughout Florida and southern Georgia.

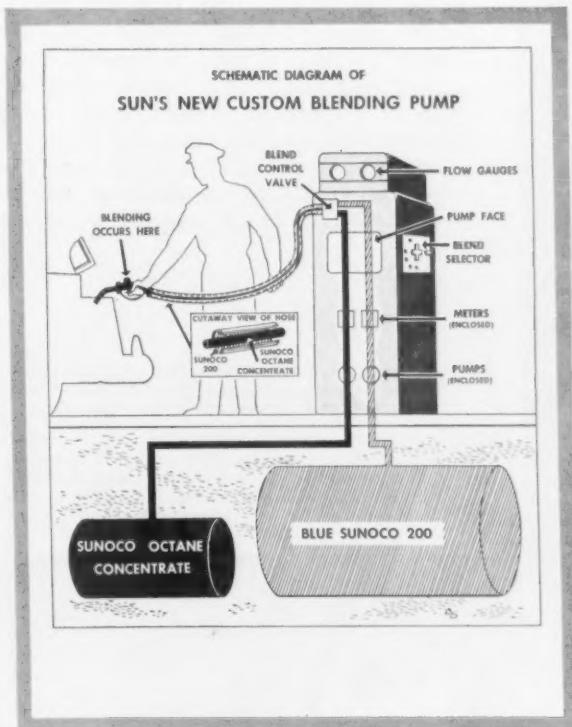
Through A Single Pump

All five grades are delivered through a single pump featuring newly-invented automatic custom blending equipment. Each grade is priced according to its octane quality.

Multi-grade gasoline, tailor-made at the service station, is Sun's approach to the problem of supplying motor fuel to meet the widely-ranging needs of the 53 million cars owned by American families, according to Max Dietzshe, of Jacksonville, Sun's Southeastern regional manager.

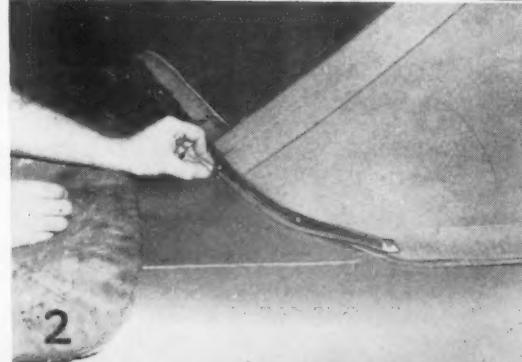
"A continuing trend toward higher compression ratios has been widening the gap between the octane requirements of the

(Continued on page 90)



After setting lever at grade of octane desired, operator fills tank in usual manner.





How To Replace

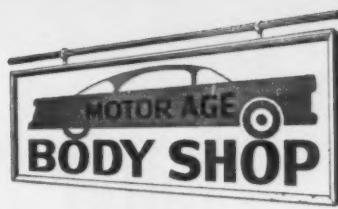
Preparation required for

THERE are two types of convertible top installations in use today—the custom made and the “boxed” top. Of the two, the simplest to install is the “boxed” or precut top. It is not necessary to make templates from the old fabric or to cut new fabric to fit, as is the case with the custom jobs. The procedures that follow deal only with precut installations.

One of the first steps when installing this type top is to sew a section of clear vinyl plastic (provided in box) over the cutout of the new rear window section. After it is securely in place trim around the outside of the stitches to make a neat job. Be sure to place a piece of tissue paper on what will be the inside of the window before it is sewn. This remains there until the job is completed. The tissue protects the vinyl from being scratched during operations on the bench and installation in the car. It is easily removed

Figure 1. After the vinyl plastic has been sewn to the rear window panel, it is trimmed. Tissue paper protects plastic sheet until job is done.

Figure 2. Before the old top is removed, the installer makes crayon marks along the body to spot original position of the boot screws.



Convertible Tops

custom tops varies widely from that needed on boxed tops, but installation is the same

when the installation of the top is completed.

The first operation on the car is to spot the position of the boot screws by making a crayon mark on the body adjacent to each screw. The next step is to remove the screws, welting and most of the tacks along the rear edge and padding rails. Detach the side channels from inside the car and pull the top from the car. Remove any remaining tacks from the rails.

Replace Shabby Padding

Examine the padding to determine whether it needs replacing. If it is stained or shows signs of rotting, replacement should be recommended to the customer. This is justified because an otherwise perfect job would be marred by the shabby appearance of the old padding.

Occasionally the paper wadding in the rails may need replacing. If so, attaching screws can be removed and new wadding is easily slipped into place. Rear pads are usually sewn directly to the rear window panel in original installa-

tion and, as a result, must be replaced separately. Sew the new pads into their proper position. Tack welting along the upper edge of the deck. Then, tack the rear window panel into place. Be sure to center it properly all around. Trim the fabric around the window after installation. Install the welting along the front rail.

After the pads, welting and the rear window have been installed, the next operation is to put the top itself in place. Throw it across the padding bars and position it in its approximate final location. If one man is doing the job, tack down an upper rear corner of the top. Then, check both sides to determine whether the fabric overlaps evenly all around. It may be necessary to move the fabric in either direction. If this is the case, remove the tacks, retack in the new position and make another check.

Pull the Fabric Tight

Starting at the lower left corner of the rear

(Continued on page 86)

Figure 3. Boot screws and welting have been removed. Tacks are then pulled to remove the old top.

Figure 4. Stripped down frame is ready for installation of new top. Old padding is being reused here.

Figure 5. Stapling the window panel into place. New rear pads and welting have already been installed.

Figure 6. Stapled at one corner, the top is being pulled tight for positioning along the opposite side.

Figure 7. Welting has been stapled into place part way across front. It is being bent with hammer.

Figure 8. Nearing completion of the job, the installer is shown replacing the left rear window channel.



7



8

Motor Age Shop Clinic Quiz



How well did you read the article entitled "Servicing the Auto-Lite Generator" that began on page 42 of this issue? Why not take the Shop Clinic Quiz of ten questions on this article that appears here?

The Quiz consists of ten questions, the last four of the true or false variety. Keep track of your answers and total up your score. Five or six correct is rated "fair." Seven correct answers is good; eight, very good. Nine or ten right—excellent!

When doing the "true or false" type questions in the Motor Age Shop Clinic Quiz, remember that if only one statement in the question is false—even though other statements are true—treat the whole question as false. The other questions are either of the "multiple choice" kind or demand reasons in their answer part.

1. In checking the field coil windings with a test lamp, the field lead should be positioned so that it (can or can not) touch the field frame.

2. Name three mechanical defects to be on the lookout for

when testing the armature of the generator:

3. When testing the armature, discard it if the armature is grounded which would be indicated by the test lamp (lighting up or not lighting up).

4. Give three reasons why it would become necessary to turn the commutator on a lathe:

5. When removing the commutator end-plate, why should the brushes always be lifted up?

6. Brushes should be replaced if they have become oil-soaked, worn or extend less than ($\frac{3}{4}$ or $\frac{1}{2}$) of their original length.

True or False

7. In checking the field coil windings with a test lamp, one of the test prods should be put on the "A" generator terminal and the other prod on the field frame.

8. Correct brush spring tension is important as too much tension will cause arcing and reduced output and too little tension tends to cause rapid wear of the brushes and commutator.

9. When checking the armature on a growler for shorts,

An absorbing and easy-to-do

Quiz of ten questions based

on the article on pages 42, 43

a thin steel strip should be held on the core and the armature itself rotated slowly.

10. When cleaning the brush holders with cleaning solvent the insulation may be also cleaned with the solvent if the insulation covering appears soiled.

Answers to Quiz

(turn page upside down)

1. False, solvent should not be allowed to touch insulation as insulation would likely be removed leaving little metal to hold brushes.
2. Wrong or bent shaft, worn laminations, loose wires, commutator, scored core or copper.
3. Tightening up.
4. Commutator is round, burried spot, out-of-round, bears extreme above surface.
5. Brushes could snap off or become crippled or cracked.
6. $\frac{1}{2}$ of their original length.
7. Terminals should be cut to "F" terminal for this test.
8. False, too much tension will cause arcing.
9. True, little will cause arcing.
10. False, solvent should not be held near electrical leads.

FORUM MERCHANDISING FORUM

Windshield Public Relations

Practically all of us at one time or another have found a handbill or leaflet under the windshield wiper blade after returning to our parked cars. A new twist to this method of advertising is one used by an enterprising Service Station in California.

At railroad stations in the area, this firm from time to time cleans the windshields of cars parked there by commuters. When a commuter returns to his car in the evening, he finds a bright, clean windshield and a card under the wiper blade telling that the windshield has been cleaned courtesy of this firm—whose location is clearly pointed out on the card.

Key to Showroom Visits

An interesting idea on how to bring potential customers into the new car dealer's showroom is suggested by a recently announced campaign conducted in five of the six agencies owned by R. E. Dumas Milner of Jackson, Miss.

In these five agencies—located in cities in the South and Southwest—Milner has keys mailed out to car owners in each city's area. One of the keys will unlock the steering wheel on a brand new car on the dealership's floor in that particular city. All a recipient has to do is to come in and try the key on the steering wheel lock.

Replacement Sales Grow in Lube Bays

A Merchandising Forum award of \$7.50 goes to Harry J. Miller of H. J. Miller Auto Repairs, 991 Forty-second St., Sarasota, Fla. Harry says that aside from the standpoint of safety and easier servicing, "our lube bays are kept scrupulously clean" so that no customer will hesi-

tate in walking beneath his elevated car.

"Reason is that we do our level best to have the customer go with us as we do the lube job. We direct his attention to worn tires, bad mufflers, unbalanced wheels, etc., and this leads to higher sales tickets."

Harry also adds that when a customer accompanies the mechanic, a customer sometimes complains of engine operation and often turns the car over for a major overhaul job after the mechanic discusses the engine's symptoms with the customer.

Builds Attention-Getter

Another Forum award goes to Isaac R. Eby, owner of Eby's Garage & Service Station, Elizabethville, Pa. Isaac enclosed a photograph of his three-wheeled car that he built mostly from parts from a 1931 Buick. He reports that the car is used mostly for advertising and has proved a great attention-getter.



Three-wheeled car of Isaac Eby is attention-getter.



GUARANTEED TUNE-UP.....

This shop owner in San Gabriel, Calif., dates his rapid



Owner Bob Palmini stands by cam grinding equipment

WHEN you guarantee your tune-ups for 10,000 miles, your business can go only one way—and that's up!" So says Bob Palmini, owner of "Bob's Dyno Service" in San Gabriel, California. By "up," Bob means a 300 per cent increase in parts and labor dollar volume in slightly over three years' time.

Bob points out: "On our guaranteed tune-up jobs, we completely check out, under load, on our dynamometer, all engine systems pertaining to performance. From this diagnosis report, we undertake all repairs and reconditioning necessary to put the car in peak operating condition. When the job is completed, the car goes back on the dynamometer for final carburetor adjustments and power timing."

Little Come Back

The records show that Bob's "do over work" and "parts replacements" under the 10,000 mile guarantee, during the past three years, have been practically nil. Occasionally a customer returns during the guarantee period for a carburetor adjustment of one kind or another. In most cases the trouble is a malfunction of the needle and seat brought about by gasoline impurities.

On all major tune-ups, the customer is asked to return in about a week for a check on timing and general performance. The car goes on the dynamometer where the horsepower is recorded and compared with factory specifications for that make and model.

"Without a dynamometer, where the exact horsepower output of the car can be measured, our 10,000 mile guarantee wouldn't mean anything," Bob explains. "During the 10,000 mile period, the car must maintain—within a few points—the peak horsepower it gained as a result of the tune-up. At any time customers may drive in for a quick check to make certain that horsepower and performance haven't

.. Plays Pleasant Sales Tune

increase in quality tune-up work since his purchase in 1952 of a dynamometer

slipped as the miles pile up. Being able to prove at any time that our work has been done right is what builds confidence in the mind of the customer, and makes him spread the gospel to his friends."

Bob's 10,000 mile guarantee contains no gimmicks or hidden clauses, nor is it a written contract. It is merely a statement to the customer that if he lets Bob do everything necessary to restore the car to peak performance and maximum gasoline economy, the job is verbally guaranteed for 10,000 miles. For both

(Continued on page 132)



Tune-up jobs to bear the famous guarantee must be completely checked out under load on dynamometer.

At any time during the 10,000 mile period, customer may drive in for quick check on performance rate.



MANAGEMENT CLINIC



Changes Can Help Dealers Sell

After review of overall operations, certain changes should present themselves as available tonics for injecting new life and spark into your sales programs

by Ernest W. Fair

CHANGE usually works for the good. Sitting still too often allows us to become stagnant or worse still—slip downward until our business has plunged to such depths it takes a herculean effort to bring it back to life.

Such changes in the automobile dealer's methods of selling can frequently serve as the needed tonic to inject new life into his business. In cases where such changes in ways and methods can be accomplished at little if any cost the results, profitwise, are even more worthwhile.

Where shall we make a change? Here's a suggested list of points any automobile dealer can examine in his organization with a view to possible changes for better results. They have been compiled after study of a wide assortment of case histories involving dealers overhauling of their selling methods. They represent the points which should be most closely examined as well as the best opportunities for such business improvement in any automobile business, large or small.

True Potential

Changes in number of salesmen are often called for. In many instances the true sales potential is not being achieved because the present staff simply cannot make the proper

number of outside contacts in the time available. In others, short staffs develop a procedure of hit-and-miss selling or devoting too little time to each customer and leaving many sales possibilities untouched.

Where such conditions exist even one additional salesman can relieve that tension and give present men on the outside sales staff just the amount of added time they need to do their own jobs right. Holding our staff short is always poor economics; too often in doing so we turn good salesmen into nothing more than order takers who follow "hot leads" only and do not dig out sales which create volume in any automobile business.

On the other hand too large a sales staff can also be losing business for us for it spreads the available prospects and customers so thin no one salesman can make enough in commissions to be satisfied with his earnings. When a salesman is dissatisfied for this reason he is never a good salesman.

Changes in method of supervision of salesmen and selling programs can often produce surprising results. Even the best salesman in the world, under bad supervision, never reaches his effective peak. And where this condition exists the average salesman seldom even earns his drawing account each week or month.

In some instances it will pay the automobile
(Continued on page 98)

New PRODUCTS SHOW WINDOW

Plastic Coating Kit

Beckett-Harcum Company: "Dipcoat," a plastic coating for tool handles and other equipment, has been marketed by the plastics division of this company. The coating is a vinyl plastic that serves as an electrical insulation and is resistant to acids, according to the maker. The kit contains everything necessary for applying the coating, the kitchen oven being the only major equipment item needed to complete the job, it is stated.

Write: Beckett-Harcum Co., Plastics Div., 1087 Wayne Rd., Wilmington, Ohio.

Special Tool Kit

Allen Electric and Equipment Co.: An adjustment kit for servicing distributors, regulators and spark plugs has been marketed by



Allen. Called the Adjust-A-Kit, it consists of a steel case and all the tools needed to make adjust-

Tell Them Where You Saw It

Beginning with this issue of **Motor Age**, the usual New Product reply cards have been eliminated. The Editors believe that **Motor Age** readers will benefit from the speedier service made possible by writing directly to the manufacturers.

When writing for more information concerning any of the New Products, New Literature or Merchandising Aids described on these pages, don't forget to mention that you saw it in **Motor Age**.

ments, including 21 wire gages from .007 to .095 with spring lock handles, it is said.

Write: Allen Electric & Equipment Co., Kalamazoo, Michigan.

Fan Belt Lube

Gook Products Co.: This firm has marketed an anti-squeak solution for use on fan belts, weatherstrip, leather cushions and so on. Packed in an aerosol type container, the lube is said to be a non-toxic blend of silicones which is claimed to prolong the life of rubber and leather products.

Write: Gook Products Company, Langhorne, Penna.

Air Compressor

DeVilbiss Company: A six horsepower high pressure air compressor designed to fit in a pick-up truck for road operations has been marketed by this manufacturer. Forty-eight inches wide, the two stage compressor builds 175 pounds of pressure and has a displacement of 23.69 cubic feet per minute, it is stated. The 30 gallon ASME storage tank has a conveniently located air valve. Electric starting is provided through a hookup with the truck battery.

Write: DeVilbiss Company, 300 Phillips Ave., Toledo 1, Ohio.

Ring Expanders

K-D Manufacturing Co.: Two piston ring expanders for rings 4½ inches to 14 inches in diameter have been marketed by this company. These expanders with



separate retaining adaptors are made in sizes corresponding to piston ring sizes. They bolt to expanders with ring nuts, and are

(Continued on page 60)

New Products Continued from page 59

readily changed, it is claimed. K-D 890 expander is used with sizes 4½ inch to 11 inch adaptors. K-D 891 expander is used with sizes 11½ inch to 14 inch adaptors.

Write: K-D Manufacturing Company, Lancaster, Penna.

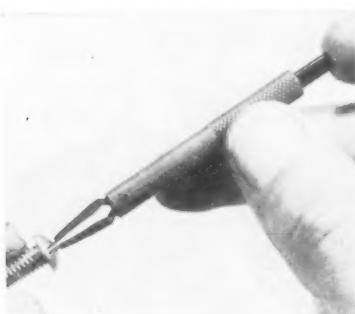
Engine Tire Pump

G. H. Meiser & Co.: This firm has marketed its latest spark plug tire pump for cars, trucks and tractors which is said to fit any gasoline engine built since 1930. According to the company, this unit will pump up to 105 lbs. of air without harm to the engine. The Enginair Tire Pump comes with 16 feet of flexible hose and a tire gauge.

Write: G. H. Meiser & Co., 327 E. Marquette Road, Chicago 37, Illinois.

Screw Holding Tool

H. J. J. Company: This firm has marketed a screw-holding driver said to prevent dropping screws where they must be inserted and started in hard to reach places. The unit's twin bits expand to grip the screw when pressure is applied to the driver after the bit



is placed (in a closed position) in the screw slot. When the screw has been started, the driver is

removed by tapping a release rod. The tool is available in several lengths and blade widths.

Write: H. J. J. Co., 268 Marlow Drive, Oakland 5, California.

Head-Manifold Gage

Piston Ring Service Co.: This firm has marketed a head-to-manifold alignment gage for use in the following procedures. When the surface of the heads on an overhead valve engine have been machined any appreciable amount, the manifold bolt holes and ports



will not line up correctly. It is then necessary to machine the intake manifold surface of the head. This gage indicates how much must be machined from the manifold in order to line up the holes and ports.

Write: Piston Ring Service Co., 800 Baronne St., New Orleans 13, Louisiana.

New Literature

Welding Data Book

Eutectic Welding Alloys Corp.: A 140 page pocket data book featuring simplified welding procedures for every base metal is now available free from this firm. The book covers 120 welding rods, elec-

trodes and welding compounds. The pocket-size data book is a guide to improve torch and metallic arc welding, brazing and soldering. Useful "how-to-weld" information is given for all types of jobs in addition to special welding applications. Data is also given on methods of gouging, chamfering and removing of unwanted metal without special equipment. Weld preparation steps are given for all metals and the best torch adjustments and electrode position and manipulation are covered. **Write:** Eutectic Welding Alloys Corp., 40-40 172nd St., Flushing 58, N. Y.

Shelving Catalog

Hallowell Div. of Standard Pressed Steel: Tips on how to plan installations and order shelving in more than 1000 combinations to fit any storage or supply-handling need are summarized in a catalog published by this firm. Drawings of basic units and accessories, suggested floor plans, a shelf-capacity chart and photographs of completed units make the catalog a useful guide to planned storage. **Write:** Hallowell Div., Standard Pressed Steel Co., Jenkintown, Pa.

Valve Spring Shim Data

Houser Engineering and Mfg., Inc.: An application and data sheet on valve spring shims has been published by this company. The sheet shows how to gauge the exact number of shims, or inserts, to use when overhauling an engine or doing a valve grinding job. Tables specify shim and gauge to use with different makes and models, and cover popular cars and trucks from 1932 to date. Cars are listed by make, year model and engine type. The data sheet also illustrates the five major points of wear of valve and valve seat. **Write:** Houser Engineering & Mfg., Inc., Bluffton, Indiana.

DISPLAYS

MERCHANDISING AIDS

SIGNS

PACKAGING

Upholstery Cleaner

E. I. DuPont De Nemours & Co.: This firm is now distributing its No. "7" Car Upholstery Cleaner in



a new "shop size" half gallon container. The cleaner, useful for cleaning rugs, upholstery and slip covers, is also still available in the original one pint size and is identified as Foam Cleaner on the label of this smaller package.

Write: E. I. DuPont de Nemours & Co., Wilmington 98, Delaware.

Filter Program

Wix Corporation: The New Wix-O-Matic program provides complete facilities for profitable oil filter sales and service. Included in the program are the Wix Dial-O-Matic cartridge selector, cartridge installation manual and cartridge installation charge guide. Included with the choice of floor cabinet or wall rack, are

shelf dividers, inventory control tabs and a cartridge arrangement guide to set up the stock for automatic shelf and inventory control.

Write: Wix Corporation, 1211 Ozark St., Gastonia, North Carolina.

Spark Plug Package

Electric Auto-Lite Co.: Switching from hot to cold, this attractive Miss operates the mechanical



counter card that demonstrates how Auto-Lite's new resistor spark plug with Power Tip operates. The card, banner and mobile are part of the Power Tip promotion package available to dealers with Auto-Lite spark plug assortments.

Write: Electric Auto-Lite Co., Champlain & Chestnut Sts., Toledo 1, Ohio.

Counter Display

Bridgeport Hardware Mfg.

Corp.: Maximum sales in minimum space (12½ in. x 10 in.) is the main purpose of a new merchandiser card containing 12 Phillips screw drivers made by this firm. An easel is provided for counter display, or the card can be hung on the wall. Designed as a self-selling display the merchandiser is said to contain the two fastest-selling sizes of Phillips screw drivers.

Write: Bridgeport Hardware Mfg., Corp., Bridgeport, Conn.

Demonstrator

Westinghouse Electric Corp.: A demonstrator which is said to permit the dealer to show the customer how the new type automotive headlight eliminates stray up-



ward light is available through this company. Two headlamps, a new style type and an old style sealed-beam are mounted on the demonstrator. A three-position switch permits each lamp to be

(Continued on page 128)

TROUBLE



By Jack Montgomery
Technical Editor

- More on Cracked Blocks
- Leaks Oil Occasionally
- Erratic Engine Idle
- Pin Fitting Problem
- Slipping Overdrive

Reader Sends More on Cracked Engine Blocks

We wish to thank Alvin L. Walker, Service Mgr., Blanks Motor Company, Inc., Clarksville, Virginia, for sending additional information to help solve another reader's problem. Here's what he had to say:

In a recent issue of *Chilton's MOTOR AGE* I noted that Conner Auto Sales, Lansing, Iowa has a 1948 F600 truck that has burst five blocks. I've found a cure for this since I have just had the same experience.

I removed the two water pumps and cut a corner off the back side of the impellers. Then I drilled a $\frac{1}{4}$ inch hole through two impellers exactly opposite each other. The water is not what is actually bursting the blocks. It is caused by air bubbles in the block. When the air moves away from any point in the block, the water moves into the

hot spot and causes it to burst. After repairing the water pump, install Mercury head gaskets with the enlarged steam holes.

be necessary to disassemble the unit to free up the check valves and so on.

Transmission Throws Oil Out Filler Tube

I would like some information on a 1954 Chevrolet Power Glide unit. This car is used very sparingly and has only three thousand miles on the speedometer. The transmission occasionally throws oil out of the filler tube and at other times does not. Would it be from lack of use?

Leonards Auto Service Station
Freeport, L. I., New York

USUALLY when a condition like yours exists it is due to the oil pumps losing their prime. In most cases, draining and refilling the transmission will take care of the trouble. But, sometimes it will

Hopped-Up Chevrolet Won't Idle Smoothly

I am having some trouble in hopping up a 1950 Chevrolet and would like some help. I installed a 270 cu. in. GMC truck engine and bored it out .163 in. to raise the displacement to 292 cu. in. Installed an 8.5 cylinder head which was ported and polished, used 1 11/16 intake valves and 1 15/16 exhaust valves with dual valve springs. We also installed a dual intake manifold with dual carburetors, special dual ignition and coil, $\frac{3}{4}$ camshaft, tubular push rods and dual exhaust headers. My problem is that I cannot get the engine to idle smoothly. If I pump the accelerator a couple times it will idle for just a fraction. It

FOR ADDITIONAL SERVICE INFORMATION REFER TO CHILTON'S

SHOOTING PROBLEMS

acts like the carburetors are starving for gas, but I can find no leaks. The trouble seems to be on the last three cylinders.

Charlie Hill
Hill's Garage
Cantril, Iowa

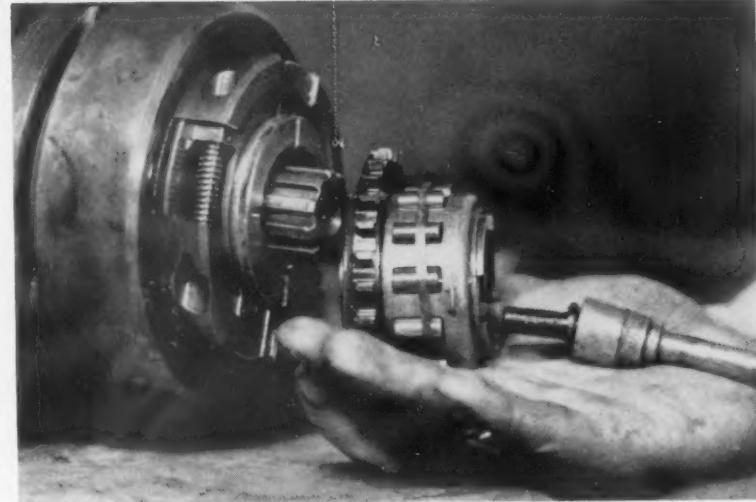
YOUR trouble is probably due to a vacuum leak in the inlet manifold or at the carburetor flanges. Since you have checked these points closely, I would check further to make sure the intake manifolds are not cracked or have sand holes in the castings. The only way to find this leak would be to remove the manifold, seal the inlet and outlet holes, and then apply air pressure while the unit is submerged in water. Also check the low speed and idle circuits in the carburetors to make sure they are adjusted to specifications.

Has Trouble Fitting Piston Pins Properly

During the years we have experienced some trouble fitting Pontiac piston pins. No matter whether tight or loose many pistons have broken where the pin is locked in. We have advised our mechanics to soak pistons in oil before putting them in the block. Can you give us a complete resume of where our troubles may be?

Roscoe D. Cook
North Sacramento, Calif.

ACTUALLY, I think most of the trouble is caused by the lock screw. Sometimes the wrist pin is not properly in line with the screw and when the screw is forced in it causes the piston to crack around



Overdrive free wheel rollers

the pin boss. It is also good practice to use new lock screws. Soaking the pistons in oil before installing them is a good idea and I would advise continuing the practice.

Has Kickdown Troubles On 1953 Nash Statesman

I am having trouble with a 1953 Nash Statesman with overdrive. I have installed a new kickdown switch, a governor switch, a solenoid and cleaned the points on the relay. When I push the accelerator to kickdown into third gear, most of the time, the engine just races. At times it will kickdown properly but if I turn a corner and slow down, then accelerate, it will buck. Occasionally, it will catch and operate normally again. This happens in overdrive only. When I

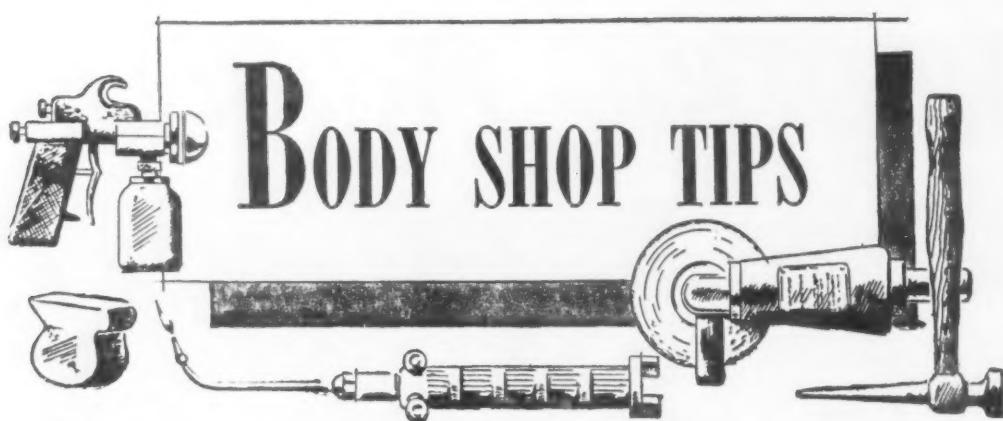
use conventional drive everything is all right.

Walter Griesbach
Griesbach Garage
Beaver Dam, Wisconsin

USUALLY, when a condition like this exists it is due to the free wheel rollers slipping inside the overdrive unit. Sometimes draining and flushing the unit will cure the trouble, if not it will be necessary to remove the unit for examining and cleaning.



MOTOR AGE FLAT RATE AND SERVICE MANUAL



**BODY SHOP TIPS
are worth**

\$7.50

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.

**Sections of Tin Speed
Window Masking Jobs**

Nearly all cars use a chrome bead on the window weatherstrip around the door window openings. Instead of trying to mask this chrome bead we use square sections of thin tin which is pushed between the bead and the door. Then it is a simple job to paper the rest of the window; taping the paper to the tin. *James P. Welch, Earlham, Iowa.*

**Air Hose Helps Check
Air Vents for Leaks**

Many times after a front end collision we get complaints of a draft entering the passenger com-

partment due to improper closing of the vent control and valve. A fast check is to place the nozzle of an air hose at the front of the air conditioning tube, hold a piece of cardboard against the vent opening and push the air nozzle through. This forms an air tight seal. A man inside the car reports on leaks; keep adjusting vent cable and but-

doing a repaint job. We've found that a length of ordinary garden hose saves a lot of time and material. Simply slip the hose over the antenna and it is effectively masked. *Chester B & J Garage, Chester, Orange County, New York.*

**Homemade Tool Aids
Door Panel Removal**

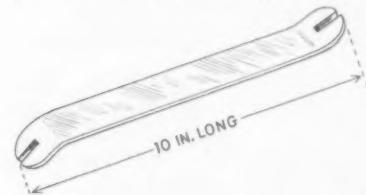
On most cars, the inside door upholstery panels are secured with long metal tacks. If extreme care is not taken when removing the panel some of these tacks will be broken. The tool I've made makes it possible to pry the door panel loose without breaking the tacks or injuring the upholstery. A ten inch length of 1/16 inch steel, 1 1/2 inches wide is all the material needed for the tool. Round off the ends and then bend one end 1/16 inch in one direction and bend the other 1/16 inch in the opposite direction. Put a 1/16 x 1 1/2 inch slot



terfly valve until draft stops with vent control in off position. *Joseph F. Gillin, New Haven Lincoln-Mercury Sales & Service, Inc., 84 Whalley Ave., New Haven 11, Conn.*

**Hose Makes Handy
Car Antenna Mask**

It is usually a tedious task to mask the antenna on a car before



in one end and a 3/16 x 1 inch slot in the other end. *Melvin L. Sutter, 915 Peterman St., Downs, Kansas.*

Up-To-Date Body Parts Price List

1956 Various Models

Nash

3146863—Radiator Grille	
Panel	23.05
3146445—Front Fender, L—	
40, 50	40.20
3146447—Front Fender, L—	
60, 80	43.55
3140577—Front Bumper	
Face Bar	43.55
4477263—Front Door Shell, L—	
4 dr.	52.90
4390491—Front Door Outer	
Panel, L—4 dr.	13.40
4476008—Front Door Ventilator Frame Assembly, L..	
4385653—Front Door Window Frame, 4 dr.	11.65
4386501—Front Door Sealer	
Top & Sides, L—4 dr.	12.80
4386375—Front Door Bottom	
Sealer, L—4 dr.	4.15
4477265—Rear Door Shell, L—	
4 dr.	2.25
4390499—Rear Door Outer	
Panel, L—4 dr.	52.90
4390369—Rear Quarter Panel,	
L—4 dr.	13.40
4390353—Rear Quarter Side	
Belt Molding, L—4 dr.	3.45
4477241—Rear Fender, L—4	
dr.	41.50
4367281—Rear Fender Lower	
Front Extension, L—4 dr.	2.65
4390755—Tail Lamp, Without	
Back-up Lamp, L....	25.95
4390773—Tail Lamp, With	
Back-up Lamp, L....	29.50

Oldsmobile

4635791—Roof Panel, 4 dr...	65.50
4634049—Roof Drip Molding,	
R	2.25
4632609—Roof Support Bow	
4661147—Roof Inner Side	
Rail, R	2.35
4637752—Back Window	
Frame Assembly, 4 dr....	5.75
4663119—Toe Pan Assembly,	
4 dr.	10.95
4632068—Cowl Side Lower	
Panel, 4 dr.	34.25
4685710—Inner Rocker	
Panel, R—4 dr.	5.55
564053—Gas Tank	3.20
567835—Rear Bumper Outer	
Gravel Deflector	17.40
	.55

Oldsmobile—Continued

568316—Rear Bumper Center	
Gravel Deflector65
4255967—Rear Deck Lid, 88,	
88S, 4 dr.	65.00
4255977—Rear Deck Lid, 98,	
4 dr.	73.00
4676043—Rear Deck Upper	
Panel, 88, 88S, 4 dr.	18.50
4674321—Rear Deck Upper	
Panel, 98, 4 dr.	17.45
4667880—Rear Deck Lower	
Panel, 4 dr.	9.50
4639050—Rear Deck Lid	
Weatherstrip	5.80
4670607—Rear Quarter	
Wheelhouse, R—88, 88S, 4	
dr.	30.85
4670736—Rear Quarter	
Wheelhouse, R—98, 4 dr.	32.00
567736—Hood Assembly	
567532—Hood Ornament ...	42.50
567453—Radiator Shroud ...	6.85
568259—Front Fender Assem-	
lby, L	6.95
567932—Grille Assembly ...	5.40
	5.40

Packard

6478079—Hood Assembly, 40,	
60	75.00
6478078—Hood Assembly, 80	
6478839—Hood Assembly, 88	
6478275—Hood Ornament,	
40, 60	10.00
6478502—Hood Ornament, 80	
461734—Upper Hood Lock..	
461735—Lower Hood Lock..	
422266—Hood Hinge Assem-	
lby, R	4.50
6484364—Front Fender, R—	
40, 60	65.00
6484366—Front Fender, R—	
80, 88	75.00
465457—Radiator Core As-	
sembly, 40, 60	77.00
465458—Radiator Core As-	
sembly, 80, 88	80.00
461158—Radiator Side	
Splasher, R—40, 60	3.00
6478506—Front Fender	
Splasher, R	15.00
465933—Engine Stone Shield	
6478164—Radiator Grille, R	
—40, 60	1.50
6478008—Radiator Grille	
Lower Bar, R	28.00

Packard—Continued

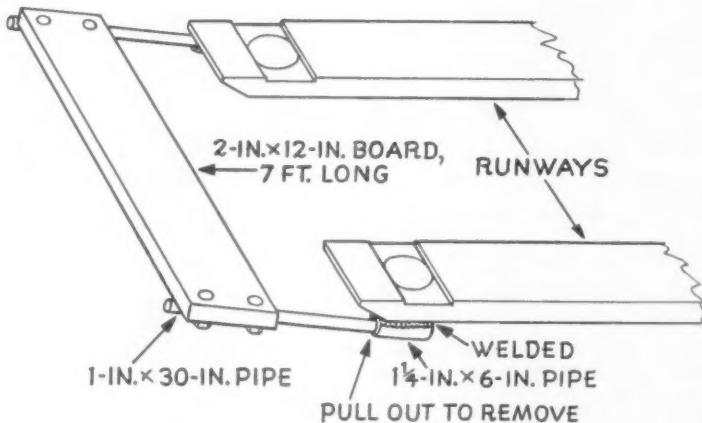
6484004—Front Door Shell,	
R—4 dr.	75.00
6484000—Front Door Repair	
Panel, R—4 dr.	22.50
370405—Front Door Check	
Arm Bracket44
6485015—Front Door Check	
Arm50
424882—Front Door Lower	
Hinge, R—4 dr.	4.00
424881—Front Door Upper	
Hinge, R—4 dr.	4.51
6478829—Outer Door Lock	
Handle Spring15
461606—Front Door Lock Re-	
mote Control, R—4 dr.	1.35

Plymouth

1682121—Hood Panel	39.90
1646424—Hood Ornament ..	5.40
1599920—Radiator Yoke ...	11.85
1624339—Hood Hinge, R...	6.25
1599404—Front Fender, R...	29.95
1612937—Front Fender	
Shield, R	11.60
1599514—Front Fender Ex-	
tension, R	2.40
1541991—Hood Lock Lower	
Half	2.30
1434906—Hood Lock Upper	
Half	2.10
1634054—Front Bumper Face	
Bar	25.95
1656458—Front Door Shell,	
R—4 dr.	57.75
1682232—Front Door Renair	
Panel, R—4 dr.	19.80
1657210—Rear Door Shell, R	
—4 dr.	58.75
1680040—Rear Quarter Panel,	
R—4 dr.	49.75
1628758—Rear Quarter Re-	
pair Panel, R—4 dr.	32.50
1628760—Rear Outer Quar-	
ter Panel, R—4 dr.	6.25
1646720—Rear Quarter	
Wheelhouse Panel, R—4 dr.	
dr.	16.75
1579545—Rear Deck Lid, 4	
dr.	53.25
1579683—Rear Deck Upper	
Panel, 4 dr.	11.35
1629482—Rear Deck Lower	
Panel, 4 dr.	8.95
1646403—Rear Deck Lid Lift,	
P28—4 dr.	4.25



\$25 KINK OF THE MONTH



Detachable Wheel Alignment Walk

When aligning the front end on ball-joint suspensions, the work is done under the hood. To make the job easier, I have made a removable walk which connects to the front of the rack. To make it, weld a 6 inch length of $1\frac{1}{4}$ inch pipe to the end of each runway. Get two 3 foot lengths of 1 inch pipe to use as arms to support a 2 x 12 inch board. Fasten these pipes to the board at points corresponding to the runway pipes. To use, slip the board section into the runway pipes. *W. A. Spears, Spears Garage, Plain Dealing, La.*

Method Speeds Removal of Lower Ball Joint

We have found what we think is an easy way to remove the lower ball joint on Ford products. Put wheels in straight ahead position and place a jack under the spring seat. Raise the jack until the wheel is off the floor, then, drive a large size punch between the steering arm and the lower A frame. *Floyd Eastridge, 4824 S. 46 Ave., Omaha 7, Nebraska.*

Rubber Bands Speed Gasket Replacement

When replacing an exhaust gasket the gasket is difficult to hold in position, it always seems to drop off the studs. To overcome this I put the gasket in place and lace a rubber band across the studs. As soon as the pipe is hot the bands dissolve from the heat. This is quite a time saver. *K. E. Miller, Miller's Garage, Boddy, Illinois.*

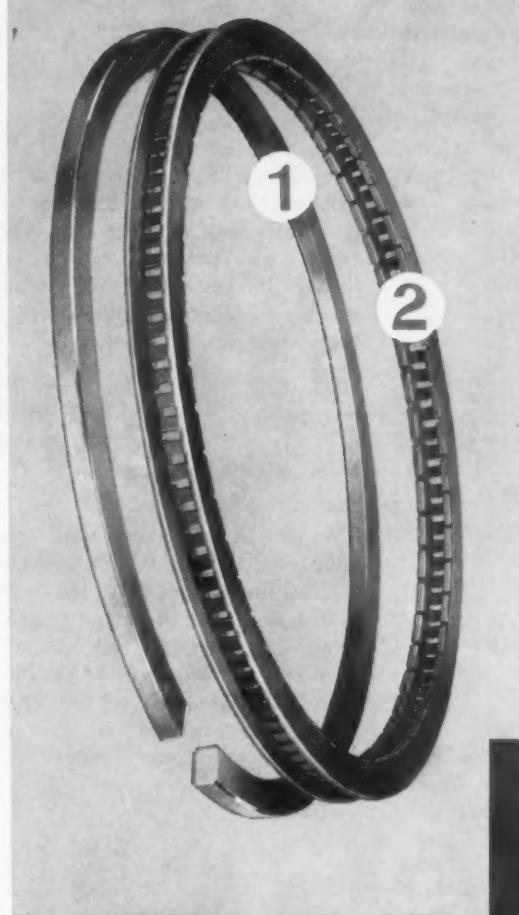
Method to Shut Off Under-Hood Light

Quite a few models of Pontiac cars have an under-hood light at the rear of the engine compartment which automatically comes on when the hood is raised. A strong rubber band looped around the light and switch button is just the thing to keep the light from burning when the hood must be left raised for

(Continued on page 68)

2 REASONS

why you're sure of lasting satisfaction



with **PERFECT CIRCLE** **2-IN-1** **Chrome Piston Ring Sets**

1

TOP COMPRESSION RING

was specially designed to perform where pressures are greatest, heat is highest, lubrication is poorest.

2

TYPE "98" CHROME OIL RING

with self-expanding spacer assures uniform pressure against cylinder wall, plus a positive side sealing action on the ring groove. (More than half of all passenger cars produced in the U. S. from Jan. 1, 1955 through May 31, 1956 were equipped with Perfect Circle Type "98" chrome oil rings.)

Both rings are plated with thick, solid chrome that resists wear, more than doubles the life of cylinders, pistons and rings. Means thousands of extra miles of positive oil control and sustained power—what every car owner wants! Install Perfect Circle 2-in-1 Chrome sets in your customers' cars and be sure of satisfaction.



Type "98" oil ring—U. S. patent numbers 2,635,022 and 2,695,825

PERFECT CIRCLE **piston rings**

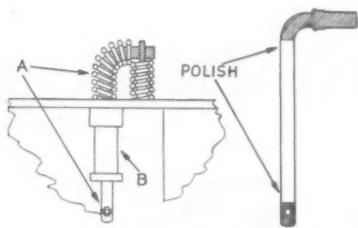
THE STANDARD OF COMPARISON

Perfect Circle Corporation, Hagerstown, Indiana;
The Perfect Circle Co., Ltd., Don Mills, Ontario.

any length of time. *Victor McGee, L. E. Dick Motor Co., 415 N. 7th St., Mayfield, Kentucky.*

Method to Loosen Sticky Accelerator Pedals

We have experienced some trouble with sticky accelerator pedals in the 1956 Ford cars hav-



ing the twin jet carburetor. This applies to both Canadian and American built cars. To relieve this condition the accelerating pump assembly must be removed from the carburetor. The pump operating lever (A) which passes through the cylindrical hole (B) in the carburetor should be polished with fine emery paper and finished with crocus cloth. This gives the necessary finish which will result in smooth operation when reassembled. A few drops of oil should be added in order that the lever operates smoothly. *William P. Miller, Transport Section, Garage, Canadian Army Staff (W), 2450 Mass. Ave., Washington, D. C.*

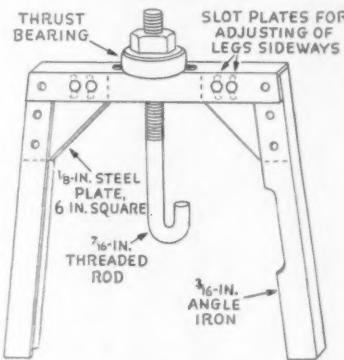
Homemade Tool Breaks Rusted Mufflers Loose

Breaking rusted pipes loose from mufflers is sometimes a lot of trouble. The problem can be made simpler by using a Ford V-8 connecting rod. Once all pipe brackets are loosened the big end of the rod is bolted tight around the pipe. If not tight enough strips of metal or old rod bearings can be used. Once it is made tight the rod is worked back and forth until it is broken loose. *Phil Herman, 6331 Tulip St., Phila. 35, Pa.*

turn nut on top. *R. B. McCrea, Modern Auto Service, 601-4th Ave., S. E., Cedar Rapids, Iowa.*

Devises Engine Hoist To Ease Oil Seal Work

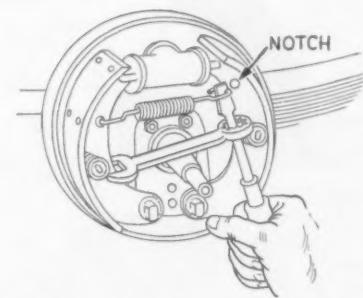
We have devised a useful tool for raising Kaiser, Studebaker, Willys and Pontiac engines to install oil seals. Made of scraps, it is 18 inches across and 22 inches high and has a 3/16 inch angle. Next, cut a 1/2 x 4 1/2 inch slot at the center of the 18 inch piece. Cut two plates of 1/8 inch steel, 6 inches square. Cut diagonally. Then drill a 1-7/16 inch hole one inch in and down from the ends of the top piece. Place a steel plate between the top and legs and drill four more 3/8 inch holes. Slot plate at the top for leg adjustment. Six inches up on one leg cut out a piece 1 inch deep and 6 inches long. Take a 7/16 x 14 inch length of cold rolled steel and bend a hook on the end. Thread down 10 inches. Use a discarded king pin support bearing and two flat washers on top. A hook can be made to clamp



under a head bolt and hook into the 7/16 inch hook. To use, loosen mounts, hook under head bolt and

Uses Simple Method to Replace Brake Springs

If you have trouble replacing the return spring on hydraulic brakes,



file a notch near the tip of an old screwdriver. Select a combination box-open end wrench that spans the shoes, hook the open end over one shoe, put the screwdriver through the box and pry the spring into place. *Henry Josephs, Box 22, Gardenville, Pa.*

Uses Flexible Line for Gas' Line Replacement

A problem I occasionally encounter in Chevrolets is a broken gasoline line at the fuel pump. That is, the line from the tank to the pump. I cut the pipe line back at the first bend, about a foot from the pump and replace the pipe by using fittings with a flexible line. This is a permanent repair. *Joseph J. Cadero, 140 Grove Ave., Corte Madera, Calif.*

If you have an original idea for a special tool, a short cut on a job or any trick of value to others, write it down and if necessary make a rough sketch. Just make it clear. Send it to Motor Age. If your Kink is used it may bring you \$7.50 or \$25. All entries become the property of the Chilton Company. Because of the quantity of entries sent in, none can be returned.

1956 Tune-up Specifications

MAKE AND MODEL	ENGINE					TUNE-UP DATA												
	No. of Cylinders Bore and Stroke (In.)	Taxable H. P.	Piston Displacement (Cu. In.)	Maximum Brake H. P. at Specified R. P. M.	Compression Ratio	VALVES						IGNITION						
						Spark Plug Make and Size (mm.)	Inlet (Deg.)	Seat Angle	Exhaust (Deg.)	Operating Tappet Clearance	Inlet (In.)	Exhaust (In.)	Timing	Inlet Tappet Clearance (In.)	Deg. Inlet Opens Before or After T. C.	Breaker Point Gap (In.)	Cam Angle (Deg.)	Spark Plug Gap (In.)
AMERICAN MOTORS CORP.																		
Hudson	6-35640	6-3x4½	21.60	202.0	120-4000	7.50	CH 14	45	46	.010H	.015C	.010	26½B	.019	39	.032	TC	
	6-35650	8-3½x3½	39.20	250.0	190-4800	8.00	AL 14	30	45	Hyd	Hyd		12½B	.016	30	.035	5B	
	6-35660	6-3½x4½	34.88	206.0	165-3800	7.50	CH 14	45	46	Hyd	Hyd		33½B	.019	39	.030	TC	
	6-35680	8-4x3½	51.20	352.0	220-4600	9.55	CH 14	29	44½	Hyd	Hyd		14B	.016	31	.036	5B	
Metropolitan	4-561, 562	4-2½x3½	13.22	90.9	53-4500	7.20	CH 14	45	45	.015H	.015H	.020	5B	.015	30	.024	11B	
Nash	6-5640	6-3½x4½	23.44	195.6	130-4500	7.47	AL 14	45	45	.012H	.018H	.015	12½B	.016	32	.030	TC	
	6-5650	8-3½x3½	38.20	250.0	190-4800	8.00	AL 14	30	45	Hyd	Hyd		12½B	.016	30	.035	5B	
	6-5660	6-3½x4½	29.40	252.6	135-3700	7.60	AL 14	30	45	.012H	.016H	.023	12½B	.019	39	.030	4A	
	6-5680	8-4x3½	51.2	352.0	220-4600	9.55	CH 14	29	44½	Hyd	Hyd		14B	.016	31	.036	5B	
Rambler	6-5610	6-3½x4½	23.44	195.6	120-4200	7.47	AL 14	45	45	.012H	.018H	.015	12½B	.016	32	.030	TC	
CHRYSLER CORP.																		
Chrysler	B-C71	8-3½x3½	46.50	331.0	225-4400	8.50	AL-14	45	45	Hyd	Hyd	VTS	5B	.017	31	.035	2B	
	B-C72	8-3½x3½	49.70	354.0	280-4600	9.00	AL-14	45	45	Hyd	Hyd	VTS	15B	.017	31	.035	4B	
	B-C72-300	8-3½x3½	49.70	354.0	340-5200	9.00	AL-14	45	45	.015H	.024H	VTS	35B	.017	31	.035	8B	
De Soto	B-S23	8-3½x3½	44.30	330.0	210-4400	8.50	AL-14	45	45	Hyd	Hyd	VTS	4A	.017	31	.035	8B	
	B-S24	8-3½x3½	44.30	330.0	255-4400	8.50	AL-14	45	45	Hyd	Hyd	VTS	15B	.017	31	.035	4B	
Dodge	6-D62	6-3½x4½	25.40	230.0	131-3800	7.60	AL-14	45	45	.010H	.010H	.014	12B	.020	39	.035	2B	
	B-D63-1	8-3½x3½	42.20	270.0	189-4400	8.00	AL-14	45	45	Hyd	Hyd	VTS	14B	.017	31	.035	4B	
	B-D63-2	8-3½x3½	42.20	315.0	218-4400	8.00	AL-14	45	45	Hyd	Hyd	VTS	11B	.017	31	.035	6B	
	B-D63-3	8-3½x3½	42.20	315.0	230-4400	8.00	AL-14	45	45	Hyd	Hyd	VTS	11B	.017	31	.035	6B	
Imperial	B-C70, C73	8-3½x3½	49.70	354.0	280-4600	9.00	AL-14	45	45	Hyd	Hyd	VTS	15B	.017	..	.035	4B	
Plymouth	6-P28	6-3½x4½	25.40	230.0	125-1600	7.60	AL-14	45	45	.010H	.010H	.014	12B	.020	39	.035	2B	
	8-P-29-1, 2	8-3½x3½	42.20	270.0	160-4400	8.00	AL-14	45	45	Hyd	Hyd	VTS	14B	.017	31	.035	4B	
	8-P-29	8-3½x3½	45.00	277.0	187-4400	8.00	AL-14	45	45	.012H	.020H	VTS	14B	.017	31	.035	4B	
	8-P-29-3 Fury	8-3½x3½	46.50	303.0	240-4800	8.25	AL-14	45	45	.010H	.018H	VTS	9B	.017	38	.035	4B	
FORD MOTOR CO.																		
Continental	8-60A	8-4x3½	51.20	368.0	..	8.00	CH-18	45½	45½	Hyd	Hyd		18B	.015	27	.034	5B	
Ford	6	8-3½x3½	31.54	223.0	137-4200	8.00	CH-18	45½	45½	Hyd	Hyd		24B	.025	37	.034	(a)	
	8-Mainline, Customline	8-3½x3½	42.05	272.0	173-4400	8.00	CH-18	45½	45½	Hyd	Hyd		12B	.015	27	.034	(b)	
	8-Fairlane	8-3½x3½	45.00	292.0	200-4600	8.00	CH-18	45½	45½	Hyd	Hyd		12B	.015	27	.034	(b)	
	8-Thunderbird	8-3½x3½	48.00	292.0	202-4600	8.40	CH-18	45½	45½	Hyd	Hyd		12B	.015	27	.034	3B	
	8-Thunderbird	8-3½x3½	46.21	312.0	215-4800†	8.40	CH-18	45½	45½	Hyd	Hyd		12B	.015	27	.034	(c)	
Lincoln	B-73A, 73B	8-4x3½	51.20	368.0	285-4500	8.00	CH-18	45½	45½	Hyd	Hyd	NA	18B	.015	27	.034	5B	
Mercury	8	8-3½x3½	46.21	312.0	210-4600	8.00	CH-18	45½	45½	.019H	.019H	12B	.015	27	.034	(b)		
GENERAL MOTORS CORP.																		
Buick	B-40	8-4x3½	51.20	322.0	220-4400*	7.60	AC-14	45	45	Hyd	Hyd		39B	.016	31	.035	5B	
	8-50, 60, 70	8-4x3½	51.20	322.0	255-4400	8.50	AC-14	45	45	Hyd	Hyd		30B	.015	21	.033	5B	
Cadillac	8-60, 62, 75	8-4x3½	51.20	365.0	285-4600**	9.75	AC-14	44	44	Hyd	Hyd		39B	.016	31	.035	5B	
Chevrolet	6-1500, 2100, 2400	6-3½x3½	30.40	235.5	140-4200	8.00	AC-14	31	46	Hyd	Hyd		10½B	.019	32	.036	TC	
	8-1500, 2100, 2400	8-3½x3½	45.00	265.0	162-4400††	8.00	AC-14	46	46	Hyd	Hyd		10½B	.019	32	.036	4B	
	8-2934	8-3½x3½	45.00	265.0	210-5200	9.25	AC-14	46	46	.008H	.018H		21½B	.019	31	.036	4B	
Oldsmobile	8-68	8-3½x3½	48.00	324.3	235-4400	9.25	AC-14	45	45	Hyd	Hyd	N	11½B	.016	30	.030	5B	
	8-Super 88, 98	8-3½x3½	48.00	324.3	240-4800	9.25	AC-14	45	45	Hyd	Hyd	N	11½B	.018	30	.030	5B	
Pontiac	8-5627	8-3½x3½	49.60	316.6	205-4600*	8.80	AC-14	30	45	Hyd	Hyd	ER	22B**	.016	30	.036	5B	
	8-5628	8-3½x3½	49.60	316.6	227-4800*	8.80	AC-14	30	45	Hyd	Hyd	ER	22B**	.016	30	.036	5B	
STUDEBAKER-PACKARD CORP.																		
Packard	8-5640	8-4x3½	51.20	352.0	240-4600	9.50	CH-14	29	44½	Hyd	Hyd		14B	.016	27	.035	5B	
	8-5660	8-4x3½	51.20	352.0	275-4600	9.50	CH-14	29	44½	Hyd	Hyd		14B	.016	27	.035	5B	
	8-5680	8-4½x3½	54.45	374.0	290-4600	10.00	CH-14	29	44½	Hyd	Hyd		14B	.016	30	.035	10B	
	8-5688	8-4½x3½	54.45	374.0	310-4600	10.00	CH-14	29	44½	Hyd	Hyd		14B	.016	30	.035	10B	
Studebaker	6-56G	6-3½x4½	21.60	185.6	101-4000	7.80	CH 14	45	45	.016C	.016C		15B	.020	39	.031	2B	
	8-56B	8-3½x3½	40.60	259.2	173-4500	7.80	CH 14	45	45	.024H	.024H		11B	.016	31	.036	4B	
	8-56H	8-3½x3½	40.60	289.0	195-4600	7.80	CH 14	45	45	.024H	.024H		11B	.016	31	.036	4B	
	8-56J	8-4x3½	51.20	352.0	275-4600	9.50	CH 14	29	44½	Hyd	Hyd		14B	.015	31	.036	5B	

ABBREVIATIONS

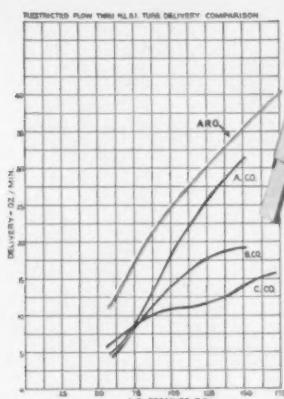
- †—With overdrive only; 225-4600 with Fordomatic.
- With overdrive only; 9.00 with Fordomatic.
- With automatic transmission.
- With Dynaflo.
- With overdrive; 6B with Fordomatic.
- With Powerglide.
- With Hydramatic.
- (a)—4B with standard and overdrive transmission; 6B with Fordomatic.
- (b)—3B with standard and overdrive transmission; 6B with Fordomatic.
- .8.90 with Dynaflo.
- .30—.36 with Fordomatic.
- .30—.36 with Powerglide.
- .27—.30 with Hydramatic.
- (a)—4B with standard and overdrive transmission; 6B with Fordomatic.
- (b)—3B with standard and overdrive transmission; 6B with Fordomatic.
- .30—.36 with Dynaflo.
- .30—.36 with Fordomatic.
- .30—.36 with Powerglide.
- .27—.30 with Hydramatic.
- (a)—4B with standard and overdrive transmission; 6B with Fordomatic.
- (b)—3B with standard and overdrive transmission; 6B with Fordomatic.
- .30—.36 with Dynaflo.
- .30—.36 with Fordomatic.
- .30—.36 with Powerglide.
- .27—.30 with Hydramatic.
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- .30—.36 with Fordomatic.
- .30—.36 with Powerglide.
- .27—.30 with Hydramatic.
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- (b)—3B with standard and overdrive transmission; 6B with Fordomatic.
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- .30—.36 with Fordomatic.
- .30—.36 with Powerglide.
- .27—.30 with Hydramatic.
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1956 New Passenger Car Registrations by Makes by States*

STATE AND MONTH	Buick	Cadillac	Chevrolet	Chrysler	Continental	De Soto	Dodge	Ford	Hudson	Lincoln	Mercury	Nash	Oldsmobile	Packard	Plymouth	Pontiac	Studebaker	Misc. Dom.	Foreign	Total
Alabama	May 679	113	2499	86	2	60	155	1545	38	35	306	44	425	21	435	397	71	2	35	6,947
	5 Mos. 3588	552	12858	543	8	337	820	8496	161	181	1591	225	2660	92	2164	306	406	4	164	37,468
Arizona	May 234	87	814	46	2	28	77	658	17	22	122	45	155	11	178	163	60	79	2,799	
	5 Mos. 1039	316	3224	210	11	130	435	2764	56	86	487	189	693	71	887	753	212	1	236	11,689
Arkansas	May 246	70	1293	47		32	126	1171	29	21	231	31	273	10	328	197	56	12	4,172	
California	May 1609	383	6931	298	1	208	743	5979	109	119	1334	194	1775	52	2109	1359	348	43	23,592	
	5 Mos. 3751	1547	11414	832	26	616	1397	9191	242	461	2657	665	2244	21	3469	2441	606	3	2445	44,686
Colorado	May 325	87	1214	88	1	68	190	938	51	36	188	105	271	26	392	236	71	36	4,319	
	5 Mos. 2613	539	6457	483	7	328	916	5140	230	229	1122	472	175	133	1725	1347	461	3	129	23,349
Connecticut	May 722	222	2156	235	1	180	415	1674	81	77	388	177	892	80	779	523	121	196	8,910	
Delaware	May 138	33	411	22		18	69	301	77	12	55	74	100	100	189	83	24	11	1,480	
Dist. of Col.	May 158	92	719	59		38	110	465	11	12	18	163	14	389	130	7	57	2,528		
Florida	May 1605	537	4669	253	3	254	544	3847	93	186	735	158	1186	74	1011	876	176	4	430	16,641
	5 Mos. 6805	2342	20456	1239	49	955	2211	1613	441	770	3071	653	5599	38	4311	4110	848	19	1433	71,833
Georgia	May 721	156	3123	100	2	92	240	2755	10	36	369	23	640	724	126	1	26	9,748		
Idaho	May 140	33	405	20		24	75	296	41	17	78	47	200	2707	169	287	482	5	133	37,179
Illinois	May 904	192	2024	185		146	371	1526	172	71	443	200	605	58	566	566	243	51	8,399	
	5 Mos. 3637	1011	9855	796	9	803	1163	7835	245	345	1798	529	2856	203	2715	2138	502	6	196	36,342
Indiana	May 2028	437	5163	395	3	220	438	2083	55	74	408	81	921	100	1679	883	90	220	12,428	
	5 Mos. 8476	1788	19706	1652	17	1537	2976	16773	502	557	3946	1075	6721	509	6480	5168	2399	10	313	80,590
Iowa	May 642	147	2195	134	1	108	244	1772	81	45	336	128	503	41	559	417	108	34	7,495	
Kansas	May 889	197	2907	159	3	127	344	2535	77	53	535	204	1681	166	2711	2019	598	2	197	35,262
Kentucky	May 723	113	2437	85	2	82	195	1757	34	27	356	44	558	163	1658	587	233	3	42	10,375
Louisiana	May 634	144	2564	106	1	77	182	2057	22	43	376	691	22	458	681	80	39	8,203		
	5 Mos. 3231	676	12416	487	5	406	864	9458	72	193	1886	236	3244	172	2528	564	147	39,517		
Maine	May 218	44	779	60	1	53	115	667	44	12	138	76	193	17	250	155	5	1	30	2,930
Maryland	May 794	167	2427	170	2	170	388	1946	25	57	349	69	609	67	871	477	137	70	8,795	
Massachusetts	May 1243	265	3196	310	1	243	519	3169	171	112	601	353	1368	108	1413	834	140	1	235	46,293
	5 Mos. 6657	1446	14469	1488	14	1190	2389	14943	667	503	2641	1790	6861	418	6323	4245	787	7	1052	87,530
Michigan	May 2678	847	8776	471	7	477	1140	6557	194	291	1437	483	2440	176	2321	1746	288	1	231	30,768
	5 Mos. 16215	5216	41105	2338	41	2616	5092	32502	911	1261	6996	11746	840	11460	9009	1587	17	921	151,832	
Minnesota	May 218	233	2663	225		192	473	2331	89	56	453	187	1040	115	585	594	194	2	60	10,750
Mississippi	May 4670	966	13058	935	11	930	2055	10685	451	314	2310	837	4445	373	3708	2711	1028	103	189	49,778
	5 Mos. 326	52	1297	45	1	34	105	959	9	13	187	66	289	16	312	209	75	5	3,940	
Missouri	May 1118	277	3796	173	2	198	314	2908	50	68	629	188	881	78	1164	744	185	2	27	21,293
	5 Mos. 5708	1282	20030	891	16	1080	1712	14423	165	308	3148	873	4878	424	4602	4176	998	8	348	66,527
Montana	May 188	46	634	53	1	30	110	508	37	11	110	41	123	13	198	132	54	1	35	2,325
	5 Mos. 886	238	2604	266	4	123	488	2185	179	84	511	177	716	73	811	558	237	2	113	10,233
Nebraska	May 347	91	1164	59		55	113	887	21	27	159	47	210	20	278	241	47	5	3,778	
Nevada	May 2047	446	5520	407	4	244	660	4767	110	136	907	242	1339	147	1558	1276	319	2	20,162	
New Hampshire	May 62	49	277	25	1	12	28	290	7	13	74	40	121	22	54	106	26	1	81	1,269
New Jersey	May 2091	677	1765	172	1	149	242	2570	33	37	453	78	714	34	684	568	121	2	46	2,388
	5 Mos. 9962	2758	20874	3214	44	2832	4667	19007	425	790	4020	1161	7773	626	5940	5758	1286	1	1243	96,036
New Mexico	May 220	69	779	68		42	63	631	11	17	153	17	201	10	162	186	30	31	2,694	
	5 Mos. 769	169	2446	188	2	108	210	1631	33	82	458	54	846	26	532	611	107	5	3,351	
New York	May 5905	1795	13295	1763	13	1415	2645	11661	357	491	799	5608	403	6389	3971	752	342	1043	61,215	
North Carolina	May 865	178	2565	172	1	149	242	2570	33	37	453	78	714	34	684	568	121	2	46	8,516
	5 Mos. 4295	862	12280	840	12	689	1238	11817	160	203	1980	444	3565	182	3278	2892	663	16	164	46,089
North Dakota	May 123	35	553	36		24	84	399	17	15	111	30	116	14	145	61	27	1	1,791	
	5 Mos. 637	143	2079	175		104	315	1791	67	70	425	135	555	45	696	289	137	1	14	7,678
Ohio	May 3440	785	8781	732	8	274	1815	8353	223	268	1694	408	2741	219	3035	2275	380	11	257	36,147
Oklahoma	May 521	157	1970	62	3	71	186	1538	24	29	318	70	499	28	428	408	85	5	4,607	
Oregon	May 643	134	1676	92	6	92	270	1458	44	54	347	167	462	40	446	426	153	302	6,812	
Pennsylvania	May 3863	813	9379	1079	4	1040	2044	8446	333	333	1837	588	3012	414	4769	2454	593	29	284	41,334
	5 Mos. 17813	3390	38342	4539	36	3243	8153	35685	1191	1131	2052	15293	1510	20618	16624	2879	74	1224	174,525	
Rhode Island	May 215	48	598	71		28	92	507	25	14	98	86	199	22	285	126	31	60	2,485	
	5 Mos. 1144	294	2621	323	7	186	411	2280	109	68	460	284	974	70	1216	620	209	2	226	11,504
South Carolina	May 361	81	1499	48		56	115	1153	4	9	180	24	265	6	348	266	44	1	23	4,523
	5 Mos. 2392	361	7863	291	9	281	710	6383	51	82	968	127	1744	39	1935	1435	297	3	120	25,011
South Dakota	May 127	27	464	18		20	57	366	24	7	70	33	97	11	111	79	19	5	1,535	
Tennessee	May 703	130	2348	89		87	211	1745	25	26	292	46	403	20	481	301	76	2	31	9,761
	5 Mos. 4244	680	12881	535	10	525	1282	9068	164	167	1853	345	3294	136	3457	2271	548	5	98	42,103
Texas	May 2272	718	9072	344	10	256	656	6489	101	152	1213	195	2025	89	1465	1504	260	2	155	26,978
	5 Mos. 13788	3154	45914	1718	55	1332	3440	32629	389	769	6227	851	10844	423	8218	8554	1690	7	587	140,789
Utah	May 154	48	468	40		62	64	349	15	18	105	29	153	8	112	123	28	52	1,828	
	5 Mos. 1159	257	2371	248	3	258	323	1716	55	83	669	138	353	49	651	709	118	1	177	9,830
Vermont	May 150	24	617	51	1	22	88	494	15	10	78	51	114	10	204	103	37	1	34	2,104
	5 Mos. 537	83	1584	115	3	81	257	1459	37	27	235	132	390	25	555	381	107	2	117	8,157
Virginia	May 994	213	3028	221	2	201	377	2816	50	60	538	137	728	67	1063</					

Exclusive ARO WARRANTY!

3 YEARS
or
10,000
LUBE JOBS



Flow Tests Prove ARO Superiority!
The AL-207 Pump clearly outperforms—as shown by chart comparing delivery by ARO and three competitors! A standard restrictor for NLGI flow test was used, with multi-purpose grease at controlled temperature.



AL-207 LUBE PUMP

Performance of this new Pump is so outstanding, ARO backs the AL-207 Air Motor with an exclusive 3 Year Warranty!

THE ARO "10,000 LUBE JOB" WARRANTY

The Aro Equipment Corporation warrants the AL-207 Air Motor to be free from defects in workmanship and material for 10,000 lube jobs or for a period of thirty-six months, whichever occurs first, from date of purchase.

We warrant the remainder of our lubricating equipment, including hose, against defects in workmanship and material for a period of twelve months from date of purchase.

This is the Lube Pump that does such a remarkable job—in extreme heat or frigid cold. It's one of many trend-setting features in the great new Aro-lube line that's sweeping ahead in popularity everywhere! See your Automotive Wholesaler now for full details.



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LUBE EQUIPMENT
Also . . . Air Tools . . . Aircraft
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Current Passenger Car Price, Weight and Body Table

Following are prices at factory for cars with standard equipment as of July 30, 1956.
State or local taxes, transportation and finance charges and optional equipment are extra.

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight
AMERICAN MOTORS CORP.					CHRYSLER CORP. cont'd					FORD MOTOR CO. cont'd				
HUDSON					DODGE, cont'd					LINCOLN, cont'd				
Wasp					Cust. Sier., 6 p.	2622	207	2829	3710	Premiers				
Super Sed., 4d	2179	201	2380	3264	Cust. Sier., 8 p.	2720	215	2935	3800	Coupe	4212	4362		
Hornet-6					500 Series					Sedan, 4d	4212	4362		
Super Sed., 4d	2504	225	2729	3545	Club Sedan	2312	163	2495	3535	Convertible	4347	4362		
Cust. Sed., 4d	2737	241	2978	3636	Sedan, 4d	2379	189	2568	3973					
Cust. H. T., 2d	2846	219	3095	3846	Lancer	2437	193	2630	3555					
Hornet-V8					Lancer, 4d	2543	201	2744	3704					
Cust. Sed., 4d	2986	259	3245	3862	Convertible	2660	210	2870	3743					
Cust. H. T., 2d	3119	269	3388	3872	Royal, V8									
METROPOLITAN*					Sedan, 4d	2485	196	2681	3535	MERCURY				
Hardtop		1445	1825		Lancer	2550	201	2751	3570	Medalist				
Convertible		1469	1785		Lancer, 4d	2656	209	2865	3759	Tudor Sedan	2036	3430		
NASH					Cust. Royal					Sedan, 4d	2081	3500		
Statesman 6					Sedan, 40					Hartford, 2d	2161	3545		
Super Sed., 4d	2146	199	2345	3199	Lancer	2634	208	2842	3630	Custom				
Ambas. 6					Lancer, 4d	2740	216	2956	3509	Sedan, 2d	2126	3505		
Super Sed., 4d	2425	219	2644	3555	Convertible	2838	223	3061	3759	Phaeton	2316	3630		
Ambas. V8					Star. Wag., Sp.					Convertible	2461	3670		
Super Sed., 4d	2716	240	2956	3748	Sub. Wagons	2588	204	2792	3749	Phaeton, 4d	2471	3790		
Cust. Sed., 4d	2939	256	3195	3816	Suburban, 8 cyl.	2685	212	2897	3765	Star. Wag., Sp.	2561	3860		
Cust. Hd. Top	3072	260	3338	3854	Cust. Suburb.	2696	203	2772	3685	Monterey				
Cust. Sta. Wgn.	2106	189	2295	3110	Sierra, 6 p.	2686	213	2909	3744	Sedan, 4d	2181	3520		
RAMBLER-8					Sierra, 8 p.	2785	220	3015	3659	Hartford, 2d	2251	3580		
Del. Sed., 4d	1842	153	1795	2891	Cust. Hd. Top	2815	222	3037	3644	Phaeton	2316	3630		
Super Sed., 4d	1743	162	1805	2906	Cust. Sier., 8 p.	2913	229	3142	3934	Convertible	2461	3670		
Cust. Sed., 4d	1854	171	2025	2929	Crown Imp.					Star. Wag., Sp.	2708	3885		
Cust. Hd. Top	2008	182	2190	2990	Sedan, 4d	6992	526	7518	5145	Montreal				
Cust. Sta. Wgn.	2106	189	2295	3110	Limousine	7117	535	7652	5205	Hartford, 2d	2511	3620		
CHRYSLER CORP.					Imperial	4428	349	4777	4575	Sport Sed., 4d	2406	3550		
CHRYSLER					Sedan, 4d	4672	367	5039	4555	Phaeton, 4d	2451	3650		
Windsor	2606	209	2815	3900	Southampt., 4d	4794	376	5170	4680	Convertible	2638	3725		
Sedan, 4d					Crown Imp.									
Nassau, 2d	2638	212	2850	3910	Sedan, 4d	6992	526	7518	5145					
Newport, 2d	2785	221	2986	3920	Limousine	7117	535	7652	5205					
Newport, 4d	2848	227	3073	3990										
Conv. Coupe	3039	242	3281	4100										
Twn. & Cty.	3283	260	3543	4290										
New Yorker														
Sedan, 4d	3449	275	3724	4110										
Newport, 2d	3609	287	3896	4175										
St. Regis	3650	290	3940	4175										
Newport, 4d	3749	298	4047											
Conv. Coupe	3880	308	4188	4360										
Twn. & Cty.	4141	327	4468	4480										
300B														
Sport Coupe	4044	320	4364	4145										
DE SOTO														
Fireddome	2434	199	2633	3780										
Sedan, 4d														
Seville, 2d	2485	203	2689	3800										
Seville, 4d	2578	210	2788	3920										
Sportsman, 2d	2598	211	2809	3835										
Sportsman, 4d	2690	218	2908	3945										
Conv. Coupe	2809	227	3036	4080										
Sta. Wagon	3078	248	3328	4095										
Fireflite														
Sedan, 4d	2844	230	3074	3860										
Sportsman, 2d	3055	248	3301	3905										
Sportsman, 4d	3134	252	3386	3970										
Conv. Coupe	3239	260	3499	4075										
Pace Car	3305	265	3570	4070										
Adventure	3410	273	3683	3870										
DODGE														
Coronet 6														
Club Sedan, 2d	1996	160	2156	3250										
Sedan, 4d	2064	165	2229	3295										
Coronet, V8														
Club Sedan	2096	167	2283	3380										
Sedan, 4d	2164	172	2346	3435										
Lancer	2222	177	2399	3430										
Lancer, 4d	2328	185	2513	3430										
Convertible	2445	194	2639	3800										
Royal, V8														
Sedan, 4d	2292	182	2474	3475										
Lancer	2357	187	2544	3505										
Lancer, 4d	2463	195	2658											
Cust. Royal														
Sedan, 4d	2394	190	2584	3520										
Lancer	2459	195	2654	3505										
Lancer, 4d	2555	203	2768	3505										
Convertible	2664	210	2873	3630										
Sta. Wagons														
Suburban, 6 cyl.	2272	180	2452	3455										
Suburban, 8 cyl.	2372	188	2560	3605										
Sierra, 6 p.	2481	186	2677	3725										
Cust. Suburb.	2492	197	2689											
Sierra, 8 p.	2579	204	2783											
LINCOLN														
Capri														
Snort Coupe														
Sedan, 4d	3763													
	3849													

* Prices do not include delivery and handling charges.

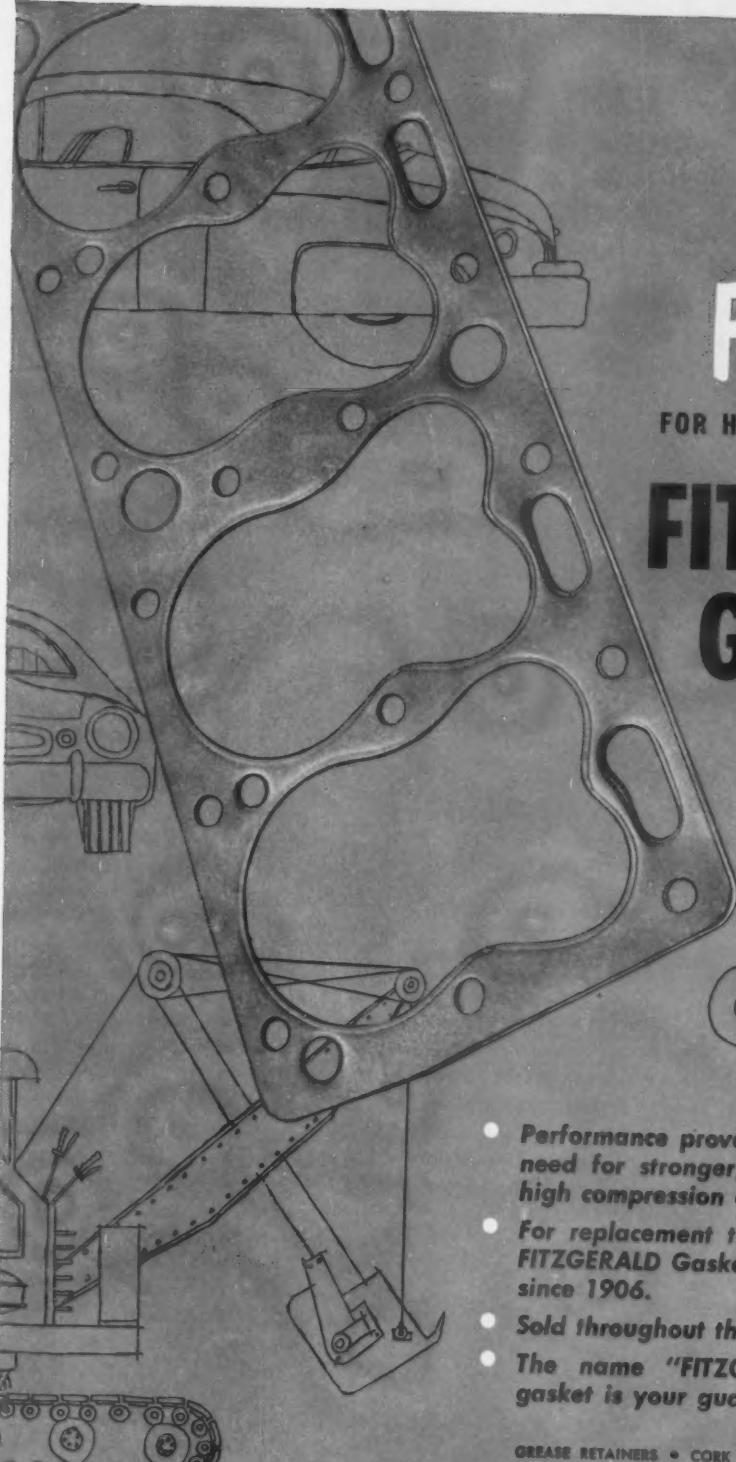
* F. O. B. coastal port of entry.

† Six cylinder models are \$93 less than 8 cylinder models.

† Six cylinder models are \$96 less than 8 cylinder models.

† Six cylinder models are \$92 less than 8 cylinder models.

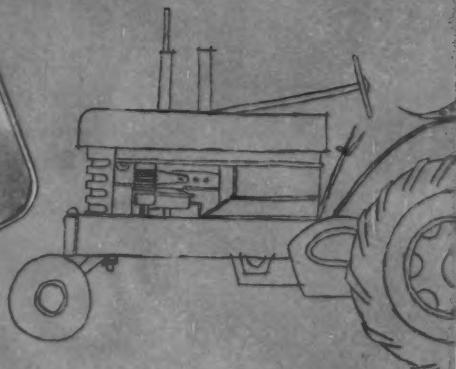
† Six cylinder models are \$96 less than 8 cylinder models.



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CANADIAN FITZGERALD, LTD.
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NEW **Torque Control** IMPACTOOL

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Originators of Impactools—AIR & ELECTRIC

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Highlights . . .

Continued from page 41

change in the type of powerplant is too lengthy to cover in detail. But the forward planning problem is there just the same.

Now let's look at the picture more closely. Some time ago one of the specialists told us that if his organization had a production gas turbine ready to release immediately it would take from three to five years to tool up for mass production. We cite this only to show that it takes a lot of time and that a shift cannot be made overnight.

Consider another facet of the problem. Everyone making V-8 engines today has built new manufacturing plants during the past few years. Yet not one of the present plants nor any of those projected for the near future is capable of being converted to the manufacture of gas turbines. If and when the new powerplant is ready to go, each producer would be faced with the practical problem of building new factories and equipping them with entirely different kinds of machinery. In fact, the kinds of equipment required for gas turbine production on a large scale have yet to be conceived and designed.

Even then it is impossible to imagine that the entire industry could convert to a radical type of powerplant simultaneously. We would prefer to believe that if and when we reach the point where the gas turbine is really a practical and economical machine for passenger cars or trucks and could conceivably compete with the V-8 engine in terms of dollars per horsepower, it is more likely to emerge in a selected group of high priced cars or dream cars or sport cars rather than in cars intended for the mass market.

Eventually the big problem facing a motor car producer, assuming that the radical powerplant has indeed become a reality, will be the magnitude of the investment in new facilities. In the case of General Motors it would involve the scrapping of six or more modern engine plants and reinvesting in a like number of new plants. The size of the investment alone will dictate a much longer period of watchful waiting after the deadline.

The fact of the matter is that much still remains to be done before either the gas turbine or the free piston combination can be considered to be in the bag. There are innumerable design and materials problems. There is the matter of gas tank economy. Regenerators are essential and will be developed. But the addition of accessories and controls for accessories all add to weight and cost and further reduce the spread in cost between the simple gas turbine and the V-8 engine.

Thus far no one has talked about the cost of building a gas turbine. One expert, concerned with manufacturing small turbines for the government, told us recently that in limited production the cost/hp is around \$80. They cannot see clearly how this can be reduced to say \$40/hp. Unquestionably, mass production would lower this range tremendously. But can it be lowered to around \$2/hp in prime cost? It will have to be somewhere in that area to justify replacement of the reciprocating engine.

The point is that novelty alone is not sufficient justification for a radical change. There must be positive advantages to the manufacturer as well as to the users.

But suppose the industry did start to switch to gas turbines around 1965. We picture it as a gradual change rather than industry-wide for all makes and models. It would take a number of years more before a complete change-over could be made.

Meanwhile — depending upon when the change takes place, there will be a car population of 70-million or 80-million remaining to be served. That's a bigger population than could be served today. It will require more high octane fuels, more anti-freeze, more parts for production, much more for replacement. And the population of such vehicles will persist for many years after a change-over has taken place, assuming that car life expectancy will be somewhere between 12 and 11 years.

So it is apparent that there is nothing alarming in the picture way off in the future—except for the need for market research and constant scrutiny of yearly trends.

(Continued on page 78)

NEW HEAVY DUTY SELECT-AIR^{*} IMPACTOOL

weighs only 5 lbs.

*AIR REGULATOR LETS YOU SELECT THE POWER YOU WANT!

Now, a premium quality, top performing, high-speed Air Impactool is available at a price every mechanic can afford. The light, compact Select-Air Impactool gives you extra power for all but the largest nuts on cars and trucks—lets you control its power for lighter jobs. Standard attachments easily convert it into a multi-purpose tool.

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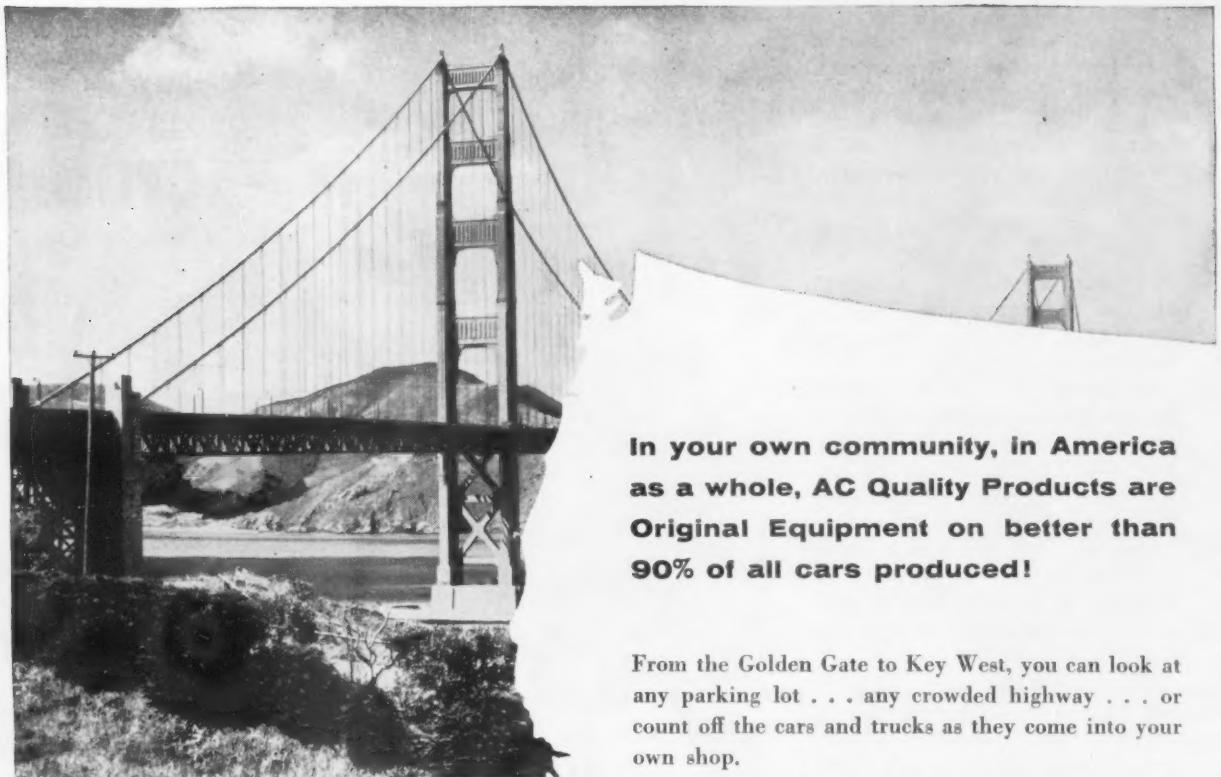
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Originators of Impactools

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All America is your



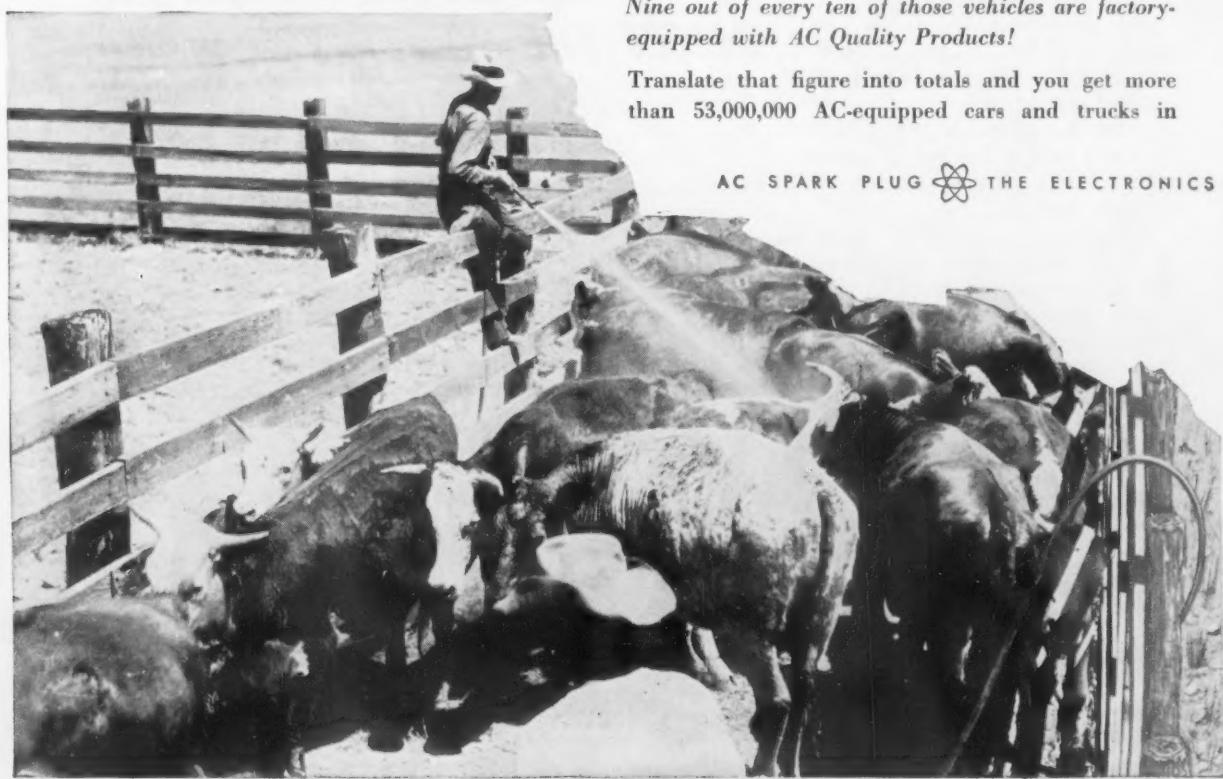
In your own community, in America as a whole, AC Quality Products are Original Equipment on better than 90% of all cars produced!

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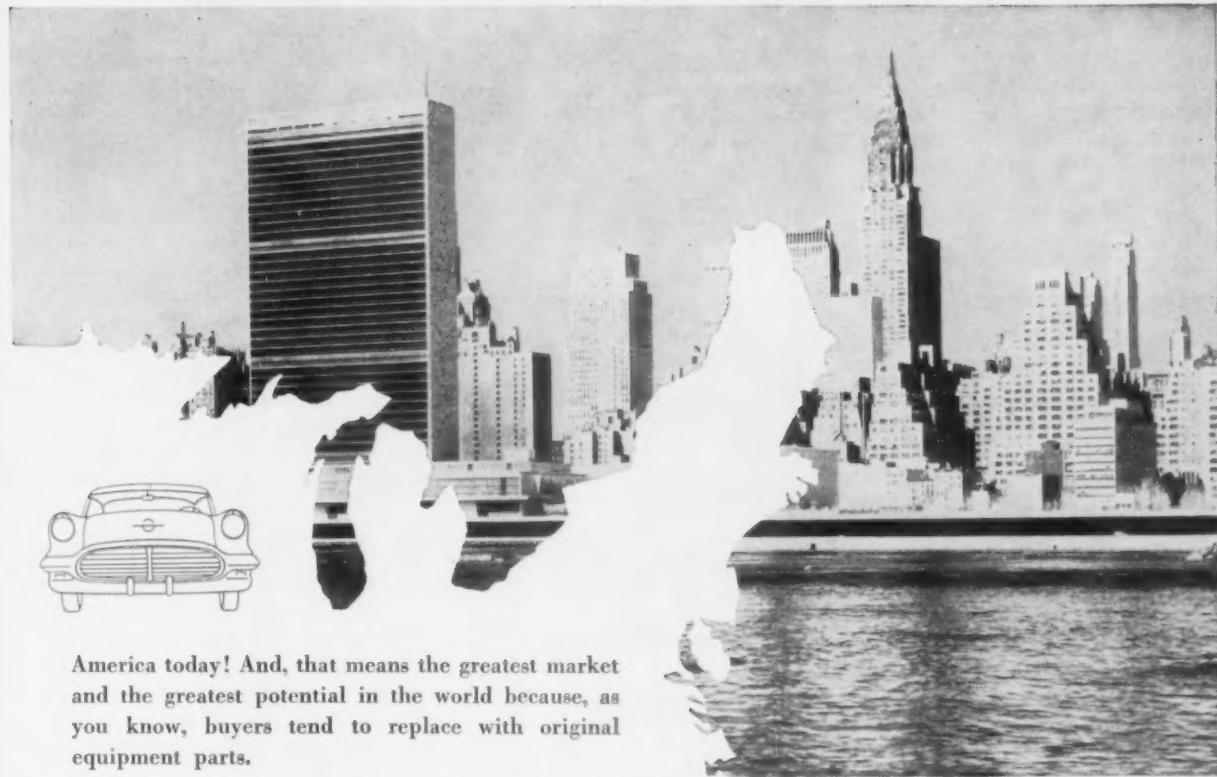
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Translate that figure into totals and you get more than 53,000,000 AC-equipped cars and trucks in

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DIVISION OF GENERAL MOTORS

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Highlights Continued from page 75

So far we have reasoned as if we had written off the high performance V-8. Nothing is further from the truth. The fact is that the present day engine is based on a new philosophy of design that has enormous potential not only for survival but for further technical advances.

Consider that even 1957 models

will peak at compression ratios around 10 to 1. They have a long way to go to the present goal of 12 to 1 compression ratio. Better fuels, in combination with improvements in combustion chamber design and better breathing, and in other respects will continue to result in greater performance and better fuel economy.

We still have to reckon with the developing art of fuel injection. There are a lot of people working on this device. There remain many knotty design problems and cost problems as well. But these can be solved in less time than it takes to produce a gas turbine power-plant.

Of course there may be a top limit on the future course of the spark-ignition V-8 engine. For example, when we approach 12 to 1 compression ratio how much further can the designer go without entering the area of compression-ignition and self-ignition. What about the cost of the super octane rated fuels of the next few years? Right now in Detroit premium fuel is around 35¢ a gallon. How much higher can it go before the millions of car owners will feel the pinch?

Perhaps we are already approaching the point at which the industry should look at smaller and lighter cars with smaller engines, capable of high levels of fuel economy even if the level is not of the order common in Europe.

This would be the logical junction for the wider use of light-weight material—aluminum and magnesium—for the engine and other parts. The smaller, lighter cars with smaller engines still could provide the comfort and high performance that characterize the American-made motor car.

Our hope is that no one will try to make such cars lower than they are today. The problem of visibility in really low cars when coping with trucks and conventional cars is a really serious one, judging from reports we get.



THE JOYCE TWO POST TWIN-MASTER LIFT

Let's take a walk "right-down-the-center" of the new Joyce Twin-Master Lift . . . see the "wide-open-spaces" offering greater under-car accessibility to all parts requiring service!

. . . and check these features . . . faster car spotting with one wheel locator . . . car frame contacted directly by lift rails . . . built-in automatic safety latch . . . simple accurate lift control . . . movements of pistons synchronized by foolproof rack and pinion gear . . . a Universal lift that handles pleasure cars, light trucks and sports cars! It's a fact . . . the Joyce Twin-Master Lift with its "right-down-the-center" freedom builds more profits by cutting job time and improving customer relations!

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FOR YOUR CUSTOMERS' CARS!

The sludge on that tow car hook spells costly trouble for your customers. Grit and dirt picked up by motor oil can do real damage to engines . . . freezing hydraulic valve lifters and scoring cylinders and bearings...unless gritty sludge is removed constantly by effective motor oil filtration —WIX Engineered Filtration.

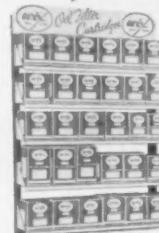
WIX offers you the *complete* Line of top-quality, HEVI-DUTY Oil Filter Cartridges for every car you service—to keep oil constantly clean for your customers and make more sales for you! WIX Cartridges feature prescription-type Filtrants —Premium WIX-KNIT and Pleated POROSITE for full-flow systems, Resilient Density WIXITE for by-pass systems. And the WIX Merchandising Program features WIX-O-MATIC, the entirely new concept in Oil Filter Service that *Guarantees Sales* for you!

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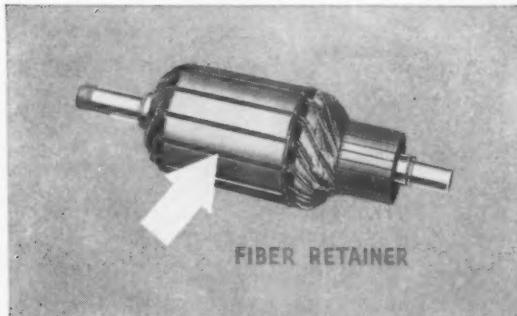
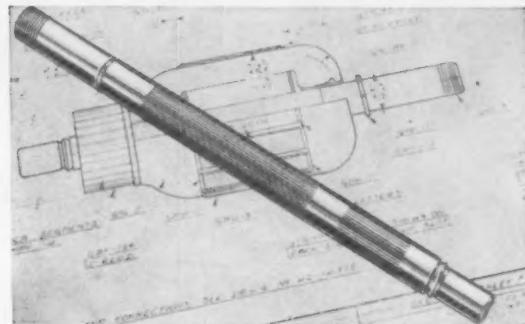
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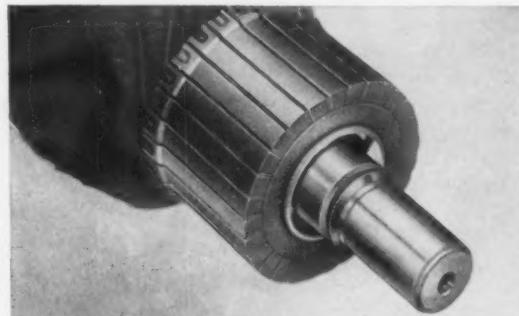
6 Good Reasons Why You should Replace

A generator armature may turn up as many as 10,000 rpm and create a centrifugal force of 175 pounds on each wire — the equivalent of a man's weight suspended from each winding. Here's how Auto-Lite armatures are engineered to withstand such force . . .



4. Coil wires are securely anchored with a fiber retainer power-pressed into each slot. Even more strength is added by an insulating varnish with exceptionally high bonding characteristics.

1. Auto-Lite starts with a perfectly balanced armature shaft, designed to run true on its axis with an absolute minimum of vibration or play.



5. Auto-Lite commutator bars are made of silver-bearing copper for extra hardness and high electrical conductivity. Top grade mica is used as insulation between commutator bars. Whole assembly is heat treated for two hours, pressed into a die while hot, making a firm unit.

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Save Time . . . Stop 'Come Backs.' Dependable Auto-Lite equipment helps stop annoying profit-reducing 'come backs.' Outstanding performance builds customer confidence that means extra profits from repeat sales.

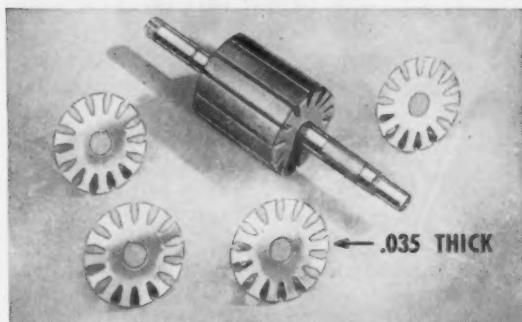


Helpful Service Information. You get up-to-the-minute bulletins, brochures, and service information sheets. You learn quickly of the latest developments and changes that help you do a better service job.

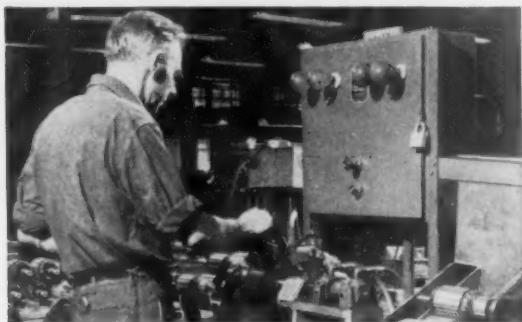


Selling Material. Auto-Lite helps you with national magazine and outdoor advertising, posters, wall charts and display and selling material. Hard-hitting selling support helps you increase your sales and profits.

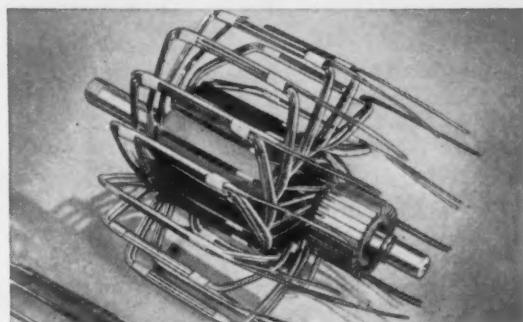
with an Auto-Lite Armature and Brush Set



2. Core is made of laminated sections of .035 inch steel assembled on shaft. Thin core sections reduce armature temperatures and eddy currents, resulting in greater efficiency.



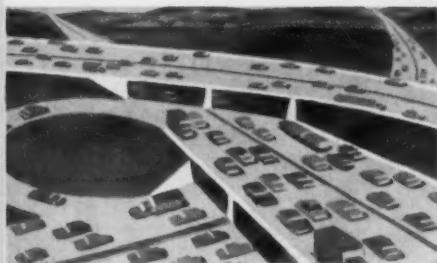
6. Every Auto-Lite armature is tested twice as a complete assembly for opens, grounds, shorts and cross-connected wires, before applying varnish, then again as a final operation.



3. Coils or groups of wires are applied to core. This operation is called "form winding." Wires are first wound on forms into coils and the coils are inserted in core slots. With "form winding" all coils are exactly the same length and armature is electrically and dynamically balanced.



with these 5 BIG AUTO-LITE SELLING ADVANTAGES!



Huge, Ready-Made Market. Millions of Auto-Lite-equipped cars, trucks, boats and tractors give you a huge, ready-made market. These owners are presold on the dependability of Auto-Lite Original Service Parts.



The Auto-Lite service school in Toledo, and distributor-sponsored field service schools throughout the country, provide specialized training to help you serve your customers better. Contact your Auto-Lite distributor.



THE ELECTRIC AUTO-LITE COMPANY
Toledo 1, Ohio • Sarnia, Ontario, Canada

Generator

Continued from page 43

armature should be discarded and replaced with a new one.

Inspecting Brush Holders

After examining the brush holders, replace the head of the brush holders if they are loose. Replace brushes if they are oil-soaked, worn, or if the leads and terminals are frayed, corroded or

broken. Also if brushes are less than one-half their original length, they should be replaced.

The brush holders may be cleaned with a cleaning solvent. Care should be taken so as not to soak the insulation of the field coils as this would likely lead to short circuits. With a clean, dry rag clean the bearing and inspect

for wear. Inspect all parts for damage, wear and distortion. Replace parts not in good condition.

When installing brushes into the holders, inspect carefully to make sure the edges of the brushes are perfectly in line with the commutator segments and that each brush moves freely in its holder.

A spring scale should be attached to the end of the brush arm. Take the reading just as the arm leaves the brush. If springs are weak they should be replaced. Correct spring tension is of importance as too much tension will cause rapid wear of the brushes and of the commutator. Too little tension will cause arcing and reduced output.

Installing Armature

Before installing the armature, it is important that the brush arms be lifted and the brushes pulled up and clamped into place. This allows armature to slide freely into end-plate. Do not remove the brushes entirely as they should not be interchanged after they have been fitted.

Again, always lift the brushes before removing the commutator end-plate as the brushes may snap off the commutator or become chipped and cracked.

When reassembling the armature, make sure the snap ring or shoulder on the armature shaft is pressed firmly against the inner race of the bearing.

When a felt washer retainer is used, it should be installed on the shaft over the snap ring before pressing the shaft into the bearing. This retainer turns with the shaft and the inner race thereby preventing tearing of the felt washer by the snap ring.

Answering his doorbell a man found an old friend and a large dog standing on his porch.

"Come in! Come in!" he said. His friend came in and sat down. Meanwhile the dog put the man's cat to flight, knocked over a lamp and several knick-knacks, finally making himself comfortable in one of the best chairs in the room.

When the guest rose to leave the host said, with a touch of sarcasm in his voice, "Aren't you forgetting your dog?"

"Dog? I have no dog. I thought he was yours."



For over 20 years TRUCUT equipment has more than paid for its own way for thousands of satisfied users. Especially designed for automotive repair work, it means steady extra profits, because it enables you to do more work in less time.

TRUCUT also brings you new profits from jobs you may now send out. Enables you to machine and undercut commutators perfectly; test for shorts; make quick work of dismantling and assembling generators.



TRUCUT ARMATURE TESTER

FRANK N. WOOD CO.
SINCE 1933
TRUCUT

334 W. Main St. • Waukesha, Wisconsin
Pacific Coast: 1330 W. Olympic Blvd., Los Angeles

Monmouth^{*} BEARINGS

... utmost precision and performance

for every bearing job!



Easy, sure procedure for you . . . certain satisfaction for your customers! That's the keynote with Monmouth bearings today. Consider . . .

When you install Monmouth bearings you can take credit for "putting in" precision, quality and performance seldom if ever equalled—the

qualities offered by the world's foremost engine bearing producer. Secondly, no headaches. You draw on the most complete line of bearings there is . . . exactly right for any car, truck, bus or tractor. Available from N.A.P.A. jobbers coast to coast.

*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth^{TRADE MARK} ENGINE BEARINGS

Clevite Service

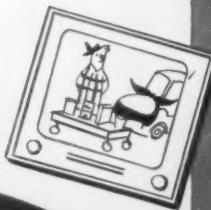
The Cleveland Graphite Bronze Co.
Division of Clevite Corporation, Cleveland, Ohio, U.S.A.



*Your
N.A.P.A. Jobber
is a Good Man
to Know!*

**"I saw PEAK
on TV!"**

TV Spots are sure to get attention. The theme is new and different: "If your car could take a blindfold test, it would choose PEAK!"



**"I read the ads in
my newspaper!"**

Newspaper Ads are big and eye-catching. They feature the "blindfold test" idea . . . some sell the PEAK "Guarantee" . . . others sell hard for NOR'WAY.



ONE WAY OR ANOTHER... CSC PRE-SELLS

Powerful "HOMETOWN ADVERTISING" does the job!
It's the best possible selling support for you!

The PEAK Lucky Driver Sweepstakes is the '56 extra that helps you build goodwill . . . attracts new customers!

If you don't already have all the facts about America's No. 1 Anti-freeze promotion . . . get in touch with your CSC distributor right away! Grand Prize is a 10-day Holiday for 2 in Hawaii! And there are 154 other wonderful prizes for lucky drivers. Be sure to have Lucky Driver Sweepstakes Entry Blanks on hand for the motorists in your neighborhood . . . because newspaper ads will tell them to see their PEAK Anti-freeze dealer for a free entry blank. To make it even more interesting . . . there's something special in it for you, too!

Here's how you can cash in on "Hometown Advertising" for '56!

- Display the colorful anti-freeze banners
- Put up the attention-getting "Lucky Driver Sweepstakes" window poster
- Hand out the Sweepstakes Entry Blanks
- Display PEAK and NOR'WAY out front
- Promote the PEAK "Guarantee"—hand out the certificate with every installation
- Mail the CSC folders and postcards to customers



COMMERCIAL SOLVENTS CORPORATION, NEW YORK 16, N. Y.

"I saw the PEAK billboard!"

Colorful outdoor messages build you up as the anti-freeze expert. They show a dealer holding PEAK saying: "Here's my choice!"

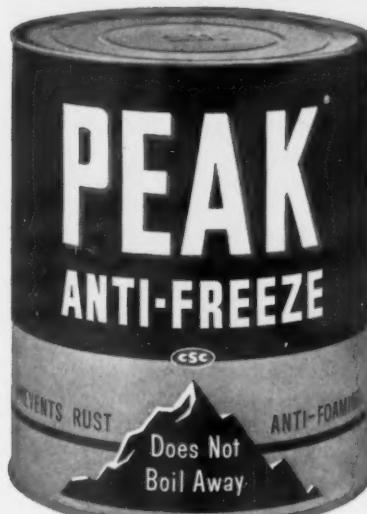


"Farm magazine ads sold me on PEAK!"

Farm Magazine ads with the double-barreled appeal of "thrift" and "safety" are directed right at your multi-vehicle rural customers.



YOUR ANTI-FREEZE CUSTOMERS



You can recommend PEAK® and NOR'WAY® Anti-freeze to customers with confidence because they're top quality CSC products!

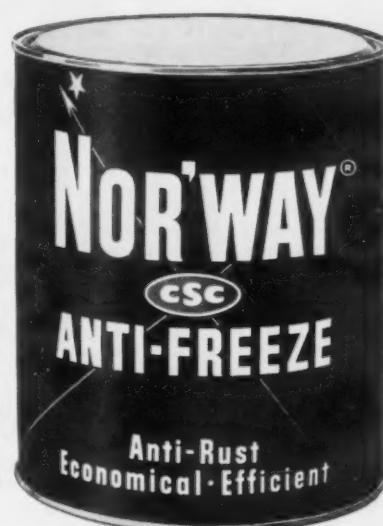
Remember these key selling points:

For PEAK Anti-freeze:

The modern anti-freeze for the modern car! Gives unsurpassed all-winter freeze protection . . . plus better protection from rust and corrosion than any other national brand. And it's Guaranteed by Commercial Solvents!

For NOR'WAY Anti-freeze:

The economical favorite of budget-minded car owners! No better freeze protection at any price. It's high in strength, low in cost. Protects cooling system metals from rust, too.



PEAK ANTI-FREEZE • NOR'WAY ANTI-FREEZE • NOR'WAY CHEMICALS

Convertible Tops . . . Continued from page 51

section, tack along the rear edge and part way up the top rail, smoothing the fabric as you go. Now, go around to the other side and pull the fabric tight. Make sure that there are no wrinkles and then tack the lower right corner. Tack the remaining area along the edge.

Go to the front and pull the top

smooth. Tack first one corner, then the other and finish tacking along the front rail. Work along each side of the car and tack part way up each padding rail to finish the tacking operations.

There is a pocket on each side of the top which can be found in the lower rear edge adjacent to the side windows. Slip a section

of heavy cardboard into each pocket. This will help the top hold its shape during shrinking operations.

Install Welting

Either one of two types of welting can be used to cover tack heads at the front and rear rails. These are "Wireon" and "Hidem." Tack this welting into place. If you are using "Wireon," tack it into place and then bend it over in a downward direction with a hammer.

Replace the window channels, reinstall the boot screws and you are now ready to wash and shrink the top. The wetting down operation is done primarily to wash the top but some shrinking does take place which tends to make the top fit more smoothly and tightly. The water hose and a sponge or rag is all that is needed in this final operation.

Pictures for the above story were taken at the Stylecraft Seat Cover Company, Philadelphia, Pennsylvania, through the courtesy of Sid Waldman.



NOW—LOCATE CAR RATTLES QUICKLY!

New Breeze RATL-CHEK magnifies sounds, finds noises without road test

Now you can keep your customers' cars from being "rattle-traps". Here's the first practical instrument for locating rattles and car noises in mere minutes — without time-wasting road tests. The new Breeze RATL-CHEK is an electro-mechanical device that works on the principle of magnifying the vibration frequency of the noise.

Simply clamp the vibrator on the car bumper, sit in the car and turn a knob on the portable frequency control unit. Vibrator is set up and the unit "tunes in" the annoying rattle at its frequency, magnify-

ing the sound until it can be located and corrected easily and quickly.

Rattles, window noise or other loose bolt connections of the car can be found and corrected, thus satisfying your customer and giving him a safer car — at a profit.

Test after test has proved the efficiency and profit possibilities of the RATL-CHEK. All electrical parts meet Underwriter Approval. Weighs only 34 pounds in case. Ask your jobber or write us for complete details.

LIST PRICE
\$125⁰⁰



BREEZE CORPORATIONS, INC.
700 Liberty Avenue
Union, New Jersey

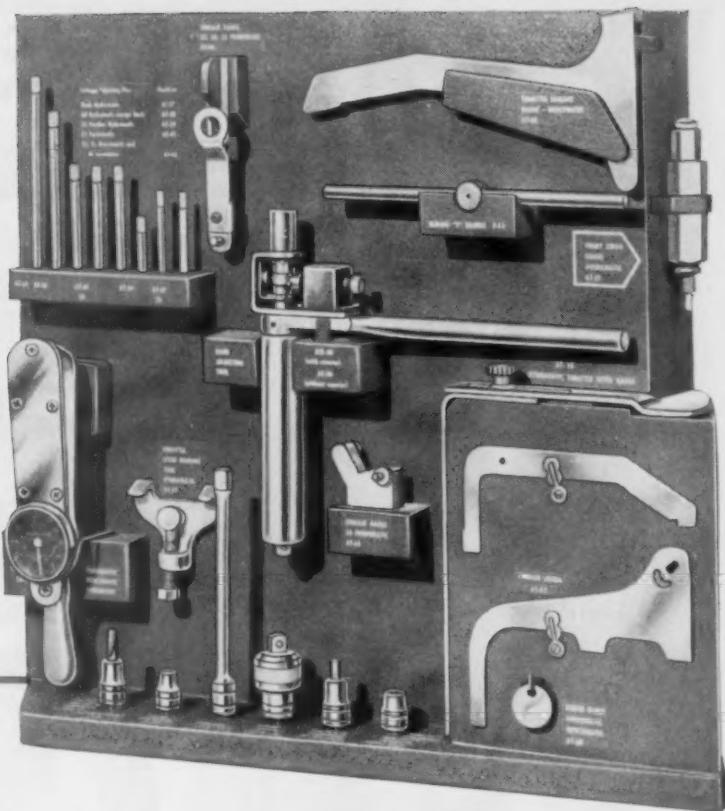
Safe Tire Theme Planned for Fall

"Safe Tires Save Lives" will be the theme of a new fall tire safety campaign planned recently by tire industry leaders, tire dealer representatives, and the Inter-Industry Highway Safety Committee.

Tire companies will work with their dealers and with dealer members of the National Tire Dealers and Retreaders Association in an industry-wide effort to get unsafe tires off the road. "The month-long campaign, beginning in mid-September, is timed to give motorists tire safety reminders during the back-to-school season," stated M. R. Darlington, Jr., Managing Director of the Inter-Industry Committee.

In keeping with the emphasis on safety for school-age children, materials will be prepared that will encourage children to participate in Old Tire Roundups, School "Play Safe" Weeks, Tire Safety-Checks, and other special events to draw public attention to the need for safe tire condition.

**Almost Half
the Cars On
the Road Have
Automatic
Transmissions**



**Cash in on servicing with *Snap-on*
Automatic Transmission Tools**

Yes, the trend is to automatics — and the servicing profits are going to shops with special tools like this *Sn*ap-on set. It's quick work, too, because an estimated 70-75 percent of all transmission adjustments can be done externally with these tools — with transmission right on the car. Tools handle adjustments on Hydramatic, Dynaflow, Powerglide, Fordomatic, Mercomatic and Powerflite transmissions.

Simple with *Sn*ap-on Illustrated Booklet
With this *Sn*ap-on set and the easy-to-fol-

low *Sn*ap-on instruction booklet, included free, your mechanics can make the adjustments quickly, profitably. They simply follow the photographs and clear, simple directions.

Get this automatic transmission set and special tool stand from your *Sn*ap-on man the next time he stops.

ONLY \$4.03 A WEEK

Just \$10.60 down and \$4.03 a week
puts the illustrated 2026-ATS set
plus stand to work for you.

**Sn*ap-on is the trademark of *Sn*ap-on Tools Corporation.

SNAP-ON TOOLS CORPORATION
8036-H 28th Avenue • Kenosha, Wisconsin





CAR WITH WORN-OUT SHOCK ABSORBERS

Certificate of Performance—"On May 21, 1956, at Monroe, Michigan, a 1954 Plymouth Sedan was driven over a special test course of 249 feet containing 3 railroad crossings at 30 M.P.H. in both directions.

"First run was made with the car with a set of worn-out shock absorbers.

"Second run was made after the worn-out shock absorbers had been replaced by a set of 'Monro-Matic' Shock Absorbers."

Sell comfort and safety with

TUNE UP

GUARANTEES



Get this
Sales-Building
Demonstrator ▶



National Advertising builds name recognition, product acceptance for Monro-Matic Shock Absorbers.

Sales Helps include attention-getting display cartons, "Tune Up The Ride" kit, posters, post cards. Free newspaper mats and radio spots on request.

D-20 MERCHANTISING DEAL ZOOMS DEALER SALES!

Monroe's new D-20 Merchandising Deal makes it easy for you to join the "Tune Up The Ride" profit parade. This deal includes twenty shocks that cover 85% of your market, the industry's most successful demonstrator, and the kind of promotional aids that produce action for you. And remember, you make up to \$16.00, including labor, on every set of Monro-Matics you install. See your jobber, or write us, Today!

MONRO-MATIC



SAME CAR WITH NEW MONRO-MATICS

Results—"The first run with the worn-out shock absorbers showed severe jouncing which threw the car clear of the ground at both front and rear wheels and clearly indicated a period of most uncertain control.

"The second run made with the car equipped with the new Monro-Matic Shock Absorbers gave an excellent visual demonstration of the control and safety provided by the shock absorbers. The wheels held the road and no lack of control was evident, clearly demonstrating the desirability of proper functioning shock absorbers from both a safety and comfort standpoint."



YOUR PROFITS 2 WAYS

1

60-DAY FREE RIDE PLAN

If your customer is not fully satisfied with Monro-Matics after sixty days' use, just re-install the worn shocks. Through your jobber, you receive—FREE—new set of Monro-Matics to replace the ones returned by the customer.

2

GUARANTEED LABOR REFUND

If you ever need to re-install a customer's old shock absorbers, after he has had the 60-Day Free Ride, just fill out a jobber and customer report and we will send you a \$4.00 labor adjustment. This Monroe policy protects your profits.

SHOCK ABSORBERS

**MONROE
AUTO EQUIPMENT
COMPANY**

MONROE

MICHIGAN

World's Largest Maker of Ride Control Products

old and new cars," Mr. Dietsche explained. "Obviously, the high horsepower engine of a 1956 model car needs a higher octane gasoline than cars built a few years earlier.

"In this new system we are offering a range of fuels so that the motorist himself can decide, through experimentation, which one is best suited to the needs of

his particular car. In this way he will pay only for the octane quality his car can effectively use."

The new system is built upon the development of an automatic blending pump and a new refinery product known as Sunoco octane concentrate.

The pump draws in precise proportion upon the contents of two



**Most complete line
of wreckers—9 models
3 to 10-ton boom capacity
all NEWLY DESIGNED
for 1956**

*Send coupon
for demonstration
or information*

Manley Wrecking Cranes



WC-10



WC-8



WC-6

This 10-ton wrecker and the 8 and 6-ton wreckers (shown at left) all have twin booms that swing to either side and outriggers (shown in WC-6 photo).



WC-4



WC-5

The best-equipped garage gets the profitable business. Mail coupon for a MANLEY demonstration.

ACCO

**Manley Division
AMERICAN CHAIN & CABLE**



York, Pa., Chicago, New York, Portland, Ore.,
San Francisco, Bridgeport, Conn.

In Canada:
Dominion Chain Company, Ltd., Niagara Falls, Ontario

Ask for Demonstration

MANLEY DIVISION MA

American Chain & Cable, York, Pa.

Please arrange demonstration

Send literature and prices

Name _____

Address _____

Town _____ Zone _____ State _____

separate underground storage tanks, one containing Blue Sunoco gasoline and the other the special octane concentrate. A turn of a dial establishes and locks in the proportion to be withdrawn from the tanks. The contents of the two tanks flow through separate hoses, one within the other, to the nozzle where they are blended before entering the automobile's fuel tank.



Ford Adds 3 Men To Dealer Board

Benson Ford, vice president of Ford Motor Company and chairman of its Dealer Policy Board, has announced the appointment of three men to the board organization:

Thomas J. O'Neil has been named Dealer Policy Board associate; John B. Millis, assistant to the chairman of the board, and Duane D. Freese, executive secretary.

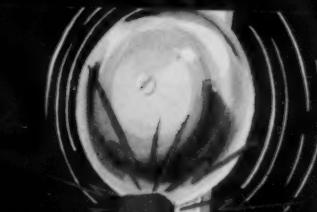
Formation of the board was announced in April. Its purpose, Mr. Ford said, is to establish better communications and to improve relations between the company and its dealers.

Members, besides Mr. Ford, are Walker A. Williams and Arthur S. Hatch. Williams is a Ford vice-president and member of the company's administration committee. Hatch was Western Regional Sales Manager for Ford Division prior to his present appointment.

IT TAKES

GUTS

in an oil
ring...



400
375
350
325
300
250
200



TO CRACK THE OIL MILEAGE

...at open throttle high speeds and at

AND GUTS IS WHAT THE



POSITIVE LOW SPEED
"HIGH VACUUM" OIL CONTROL



POSITIVE OIL CONTROL
AT HIGH SPEEDS



"LIGHT HOUSE" INSPECTION
OF FINISHED RAILS

LARGEST PRODUCER OF SMALL
RINGS IN THE AUTOMOTIVE INDUSTRY

Positive Low Speed "High Vacuum" Oil Control. Low speed oil creep around the side of the ring is prevented by using an accurately machined separator which supports the cylinder contacting rails throughout their depth and circumference and prevents rocking. This provides uniformly close clearance between the groove wall and the rail without reducing the free action of the ring in the groove.

Positive Oil Control at High Speeds. High speed "flutter" or "surfboarding" is controlled by special flexible reverse loop expander which provides a more uniform high unit pressure on the two cylinder contacting rails. The rails are chrome armored but are prelapped and heat shaped for rapid break in.

No Gouging or Scuffing of Cylinder Wall. The spacer will not gouge or scuff the cylinder wall because it is made of electric furnace iron. It is another oil ring in itself with built-in tension and two additional scraping edges. With the two chrome armored rails and the two oil scraping edges on the spacer, the 400 oil ring is really two rings in one.

Heat Shaped Cylinder Contacting Rails. Cam shaping by heat treatment produces the same "light tight" fit in cylinders that exists in piston rings that are individually cast to a cam shape. This cam shaping, exclusive with McQuay-Norris, is very important where the bearing edges are chrome armored. When these chrome surfaces are prelapped, it produces positive contact with the cylinder throughout its circumference and assures efficient trouble free ring and cylinder life.

GUAR

McQUA

BETT

AGE BARRIER

at high vacuum low throttle speeds

"400" OIL RING HAS

EVERY...
**CHROME
CONTROL**

LEAK-PROOF

PISTON RING SET

**GUARANTEED . . . to out-perform any other ring set
in the hard to hold jobs regardless
of kind, design or price!**

AY-NORRIS MANUFACTURING CO.

ST. LOUIS • TORONTO

AY-NORRIS MANUFACTURING CO. • ST. LOUIS • TORONTO
LATER KNOWN FOR BETTER PISTON RINGS SINCE 1910

COMPARISON PROVES IN A PISTON RING, TOO

	Made of Electalloy Finest Electric Furnace Process	Altinized Quick- Seating Top Fire Ring — Resists Corrosion and Wear	Cam Shaped Chrome Armored Steel Rails — Made to Fit Cylinders Perfectly	Reverse Loop Expander — Uniform Pressure on Entire Circumference of Ring	Top Chrome Rings Available
LEAK-PROOF	YES	YES	YES	YES	YES
RING "A"	NO	NO	NO	NO	YES
RING "B"	NO	NO	NO	YES	YES
RING "C"	NO	NO	NO	NO	YES
RING "D"	NO	NO	NO	NO	YES



LEAK-PROOF
PISTON RINGS



**Balanced for positive
control**

For less blow-by

For quicker seating

For quicker profits

mean customer satisfaction

Vital Role . . .

Continued from page 45

price, so he is not tempted to get rid of the sale at the lowest figure.

4. A comprehensive, well-thought-out plan of advertising, direct mail and phone solicitation is very important in Russell's operation.

For advertising, Russell concentrates on selected newspapers and tries to make both new and used car advertising reflect the integrity of the dealership and the brand name. Basic advertising technique is to advertise the exclusive features of his line of cars. These ads usually are calm and proud. Used car ads feature listings under the "Q.T." trademark, for Quality Tested and Quick Turnover.

Mailing Lists Used

Purchased mailing lists, either of Packard owners or owners of comparable competitive makes, are the basis for direct mail and phone solicitation. The usual pattern is to get a list of some 15,000 names in the market area, owners of competitive makes, and to send letters to them all inviting them to inspect Packard.

There are some important features to these letters. They always include a compliment for the competitive car so there is no implicit indictment of the recipient's judgment. But, it is pointed out, the brand of car he merchandises has made some startling engineering advances that are worth investigating. Also, all of these names are meted out to salesmen, with each responsible for an equal proportion. Each signs his entire stack of letters personally. Then a few days later, each starts making phone calls to his list. The call starts out with "did you receive my letter?" The answer must be yes, and that gives an entree and starts the conversation on a positive note.

This system brings good results, according to Russell, and results in a high response percentage. But it has an added value. It also keeps the salesmen perked up in that they are never out of good leads, and they always have something

(Continued on page 96)



"I PUSH WILLARD BECAUSE:
*There's a type,
size and price
for Every Buyer!*"

This Group 25M
Willard Heavy De
Luxe, guaranteed
24 months, sells for only \$29.45 Exchange. Based on
standard dealer cost of only \$20.72, plus scrap value
of old battery, dealer profit margin is a full 34.2%.

Complete Range
of both 6- and 12-volt
types!

Choose factory-
fresh wet or Charged
Bone-Dry® at no
extra cost!

"... and just as important, I'm able to get just about any size or type *in a hurry*. We're less than a hundred miles from one of those sixteen Willard plants, which means that my Distributor has no trouble keeping his stocks up to date.

"One thing I learned long ago . . . you can't sell a customer if you don't have the merchandise! And that's just one of the reasons why I'm going to keep right on pushing Willard.

"Want to know how you can boost your battery profits? . . .

Call your
WILLARD
DISTRIBUTOR NOW!

Vital Role Continued from page 95

to do that can result directly in sales. The constructive activity keeps morale up.

5. Sales meetings every day are vital. They only last about 15 minutes, but they enable everyone to get together and talk over their problems, putting all minds to work on possible solutions.

At these daily meetings Russell

always has each man tell him the exact status of their telephone soliciting, which is the only way to keep them up to date on calls.

There is no actual sales instruction at these meetings, but Russell considers them valuable to newer men in that it helps give them the feel of how Russell wants them to conduct their business. To that

extent, therefore, they are sales training meetings. And there is still another advantage: It gets the men out of bed on their off mornings. Without this, says Russell, they'll stay in bed until noon. Since they must come to a sales meeting they usually decide to stick around and do some work until they come on at noon, which works to their benefit.

6. Salesmen are encouraged to build up their own string of "bird dogs." These bird dogs, common to the industry, might be service station owners or attendants, repair shop owners, mechanics, or the salesmen's close friends. But Russell feels that a good salesman should have enough "bird dogs" working so that the salesman never has to leave the floor, because the "bird dogs" will always have appointments made with potential customers. Each should have 10 or more, Russell feels, and whenever one actually gets a customer in, he turns in a "bird dog" card and gets a \$25 fee. The salesman pays half of this, the company the other half.

The salesmen also make every effort to make unpaid "bird dogs" of every customer they sell. They do this by calling the customer about 10 days or two weeks after the sale and asking the customer how he likes his car, how his friends like it, and so forth. From this he frequently gets names of friends who are especially impressed with the car, and gets permission to call those friends on the customer's recommendation.

**ROUND OUT YOUR LIGHTING SERVICE WITH THIS
TUNG-SOL 6-PACK
FLASHER INVENTORY**

**TUNG-SOL No. 6
SIGNAL FLASHER
ASSORTMENT**

2 UNIVERSAL .UP229D
2.....P229D
1.....A229S
1.....P273D

Complete Flasher specifications and installation data packed in each box.

UNIVERSAL UP229D FLASHER
Replaces seven special initial equipment installations.

Most of your customers' cars are equipped with flashing directional signals. That's why a supply of Signal Flashers is essential if you are to provide a complete electrical service.

The Tung-Sol No. 6 Flasher Assortment makes it easy for you to stock the types needed to take care of 97% of all Flasher replacements. The assortment is pack-

aged for display and includes two Universal UP229D Flashers which alone will replace 85% of all types now in service. Put the No. 6 Assortment on your "want list", or phone your jobber right away.

TUNG-SOL ELECTRIC INC., Newark 4, N. J.
Sales Offices: Atlanta, Columbus, Culver City, Dallas, Denver, Detroit, Melrose Park (Ill.), Newark, Philadelphia, Seattle. Canada: Montreal

TUNG-SOL® NO. 6 SIGNAL FLASHER ASSORTMENT



Genuine Ford Parts Packages

*let Ford owners know that you've got the
Genuine Article!*



New "picture-window" packages for **Genuine Ford Parts show**
Ford owners that you're set up for their special needs!

You've got silent salesmen on the job when you display Ford's attractive parts packages with their new "windows." They serve to remind Ford owners that you specialize in Fords. They build confidence in you. And when Ford owners need a service job done, this confidence will build your business! So why not put these counter salesmen to work for you right away?



GET THIS SIGN

Display a Genuine Ford Parts oval and pull in more Ford business. Ford owners watch for it. Mail coupon for details.



PARTS AND SERVICE SALES PROMOTION DEPT.

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.

Please send complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME _____

INDIVIDUAL'S NAME _____

ADDRESS _____

CITY _____ STATE _____ H _____

Management Clinic . . . Continued from page 56

dealer to call in an expert from the outside to examine his system of supervision and the selling program of the firm. The dealer is usually too close to prepare an accurate appraisal. Any recognized topnotch sales manager (outside of the automobile field) can generally do the job for us and there are a number of these

in any area who, for a modest fee, will be glad to so appraise our sales supervision and selling program for us.

Changes in size of territories often produce better results in outside selling. Over a period of time territories can become lopsided in any area. Business changes create such situations be-

fore we realize what has happened.

Where a given salesman's territory has enjoyed terrific expansion, for example, he soon finds himself in the position of not being able to properly contact and service all of the accounts therein. Allowed to continue on this basis he naturally suffers a drop in his sales efficiency. All of us know that the average automobile salesman can handle just so much business effectively and take care of it and no more regardless of how hard he may try to do so.

At the same time another territory may have suffered a terrific decline in sales potential. This salesman has so much leisure time he seldom knows what to do with it.

In any such instance an obvious re-alignment of territory will not only give the salesman mentioned in the first example more time to properly handle his group of accounts but the salesman in the second example the proper field of prospects he needs to do a worthwhile job for the automobile firm.

Changes in routines of calls on each customer will often produce good results for the automobile salesman who works on the outside. Several months past (or in some cases years) we have set up, for example, a routine of so many calls per person in a given period. In the meantime business conditions may have changed in our territory to the extent that more regular calls are needed because of competitive conditions. If we continue to operate on the first basis, under those conditions, we are losing a lot of business to competitors which should be coming to our firm.

Advancement in our field has been so tremendous during the past few years that the selling of automobiles today requires much greater technical knowledge than required even five years ago. Such changes always call for closer examination of our system of call routine.

Changes in selection procedure for new men we add to the staff are most certainly in order in almost every area.

Today's complicated and ad-

(Continued on page 100)

\$8,000 to \$20,000 a Year Servicing Radiators

Profits pay for equipment quickly Little Space is required

\$8,000 . . . \$12,000 . . . \$14,000 a year and up—that's why so many dealers and garages are enthusiastic about their radiator servicing department.

Little overhead is required. One man handles the work, and he can get free training in a prominent factory school.

Little space is needed. One dealer reports setting up his radiator department in a wash stall. One radiator shop reports using an old coal house. A department can be started with only 2 pieces of equipment, others can be added later.

The potential in radiator servic-

ing is enormous. Of the 60-million autos, trucks and tractors in the U. S. over 20-million require radiator service yearly. More than 80% of all vehicles, in use 1 year or more, have radiators plugged at least 25%. That's enough to cause trouble on a long hard drive. Greater plugging can cause serious engine damage. Newly overhauled engines will fail prematurely if the radiator is partially plugged.

Besides the jobs that come direct from car owners, an added volume always comes from other dealers, as well as garages, body shops, service stations, etc., who have no radiator servicing equipment.

INLAND—World's Largest Manufacturer of Radiator Servicing Equipment Offers One Complete Package — EQUIPMENT, TRAINING, MERCHANDISING!



Inland's modern equipment and free factory training enable you to do professional work . . . fast and easy . . . increase profits.

Send for NEW 48-page book, "Blueprint For Profit", with letters from customers, equipment, prices and details of "Pays-For-Itself" payment plan.

INLAND MFG. CO., 1108 Jackson St.
Omaha 2, Nebraska

"Sold Exclusively By Mail"

INLAND MFG. CO., Dept. MA-8
1108 Jackson St., Omaha 2, Nebr.

Please send new free booklet "Blueprint for Profit"

FIRM. _____ PLEASE PRINT _____

ADDRESS. _____

CITY. _____ ZONE. _____ STATE. _____

BY. _____ TITLE. _____

If Dealer, make of car sold _____

Are you now operating a radiator shop Yes No



Management Clinic . . . Continued from page 98

vanced methods and machines cannot be satisfactorily sold by just anybody. If we continue to select salesmen on such a basis we are missing sales opportunities every day of the business year. If we continue to employ such men on the staff today we are virtually handing a great deal of business to our competitors.

Selection procedure today requires care and caution and offer of better incentives than we have ever laid before the men on our sales staff in years past.

Changes in allotment of sales costs may also be required in today's selling in the automotive field. The advertising and sales allowances we set up in the past

may have been sufficient for a less competitive period; today then can be so inefficient as to actually work hardships on the best men we have on our sales staff.

Held to Certain Limits

Sales costs must of course be held in certain limits or the firm will have to go out of business because of a lack of sufficient profit margin. The actual "point of no return" for every dealer is well known to him. The gravest error being committed today is in efforts to squeeze on those sales costs with the hope of obtaining a larger profit for the firm. The system seldom proves effective; more often is genuinely destructive.

Changes in compensation methods can often produce unexpected results for any automobile dealer. This is particularly true where a system developed several years ago is still being used by the firm. Present methods of compensating salesmen should really be examined every year with a view toward possible improvement which can provide greater incentive to the men on the staff.

Changes in stimulation devices such as contests, bonus awards, etc., also require periodic examination. Any such stimulator, after a normal period of time, will lose its force. New ideas must then be developed and presented to the men to inspire that extra spark in selling which produces top results.

Even the best result-getting stimulator is better set aside than pushed until it becomes shopworn. If not used for too great a period it can always be brought back a couple of years later and put to profitable use.

An examination of the foregoing possible changes in the dealer's selling methods and procedures will also bring to light a number of other possible changes peculiar to his own business which can be made with equally good results. The important thing is that the need for such possible changes be recognized and that action be taken when such specific need is discovered in our own individual business.

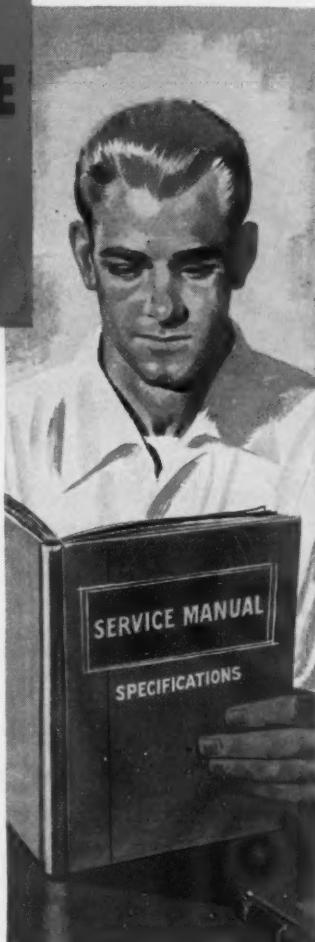
ACCURATE INTERFERENCE PIN FITS ARE EASY...

**with the Sunnen
"gage-measured"
method**

"Feel" won't help you on an interference fit.

But it's easy to *know* you have the right fit with the Sunnen Pin Fitting Gage. Even an inexperienced man can quickly learn to fit pins to the nearest "tenth" of interference or clearance.

It costs you nothing to see this modern pin fitting method demonstrated in your own shop. Simply write your name and address on a postcard and send it to us.



914A



New! Genuine Schrader Chuck Gauge

with replaceable
gauge unit

Accurate Gauging—continuous
visibility of easy to read
calibrations—Gauge Unit
replaceable in a few seconds

Ease of Operation—Single push-
button control of all three
—Gauging—Inflating—Deflating

Tough Nylon—molded in one
piece—built to last and last!

Operating Valve with
"O" ring construction—
long life—replaceable

Dual Foot or Single Foot—
wear and oil-resistant
Hose Units replaceable

The New Schrader #3650 Type Chuck Gauge

Comfortable Grip—
shaped to fit the hand

8052 COUPLER
Check Unit—Adapters

5495

5499

Reliable Air Chucks

Everything you need to keep your airlines profit lines

Your airlines are money to you! These genuine Schrader Products help you give complete and accurate tire service. Install a new Schrader Chuck Gauge, with replaceable gauge unit, in all your strategic service areas. Teamed with Schrader Couplers and Adapters, this new Chuck Gauge adds up to the kind of service that saves steps, time, trouble . . . keeps your customers coming back to you.

Remind your customers of the importance of proper tire inflation, it's a key part of your "Certified Air Service" program. Use Schrader Gauges and all Schrader Air Products—keep your air service up-to-date. Order from your supplier today.



Gauges
you need for
better Air Service

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
470 Vanderbilt Avenue, Brooklyn 38, New York

Schrader[®]

ESTABLISHED IN 1844

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

ECHLIN *EXTRAS* IN

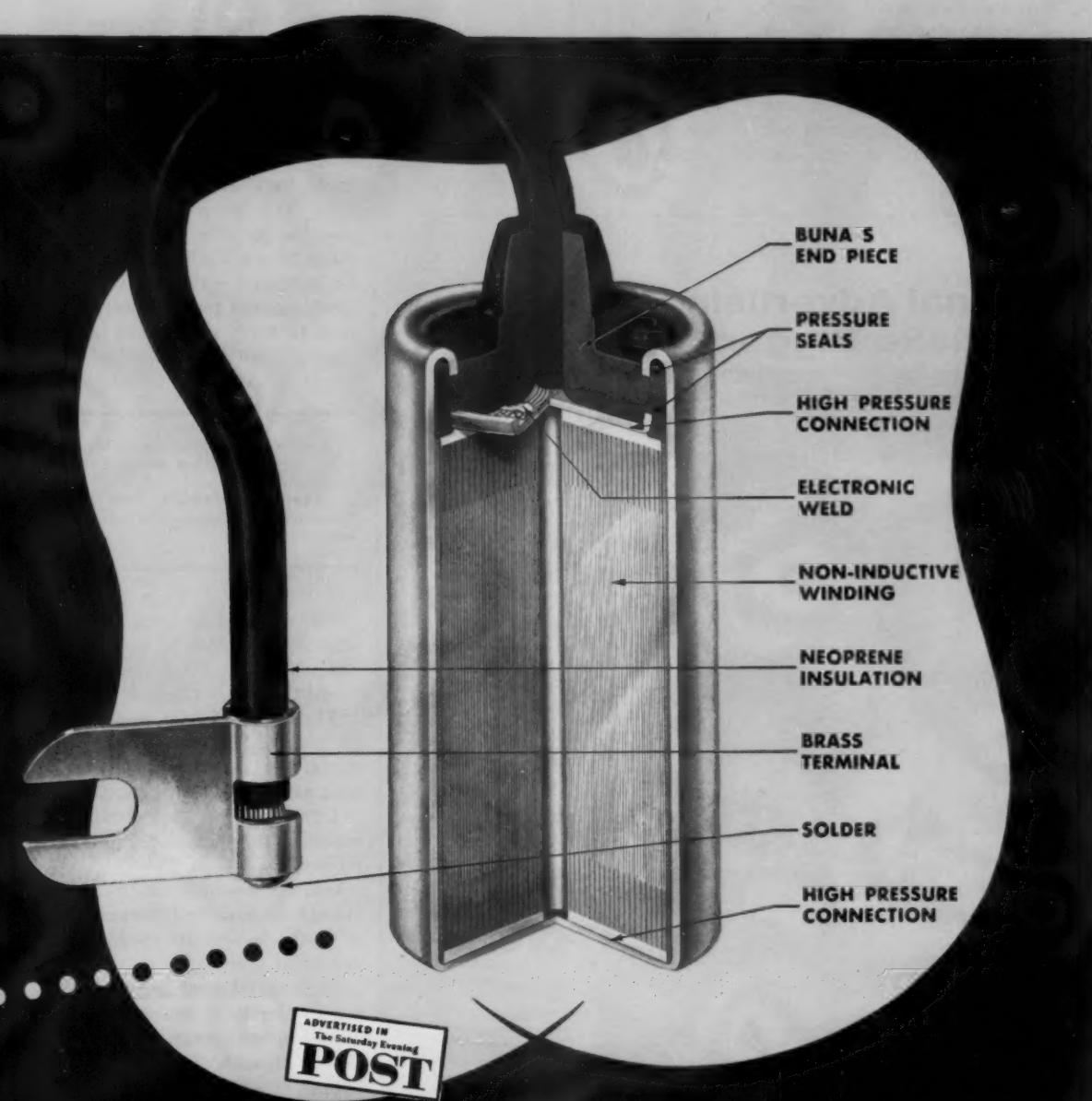
THE MOST Trouble-free
IGNITION CONDENSERS
Ever Designed

ALL THESE
ECHLIN EXTRAS IN
ALL ECHLIN CONDENSERS
AT NO EXTRA COST TO YOU...



ECHLIN IGNITION OF CANADA LTD. • 1866 AVENUE ROAD • TORONTO, ONT.

WATERPROOF CONDENSERS



ECHLIN



Ignition
CONTACTS
COILS • CONDENSERS
& OTHER AUTOMOTIVE
ELECTRICAL PARTS

ECHLIN MANUFACTURING COMPANY • NEW HAVEN 5, CONN. • U.S.A.

Service Continued from page 48

The salesman had brought him into my office so that I could thank him for the order.

"Perhaps you might be interested in knowing why I bought from your company?" he asked. I was, of course.

"Being in the fuel oil business it's vital that our customers get their oil on time. A customer

whose children are cold isn't interested in excuses as to why his oil wasn't delivered. Good service is of paramount importance to us. We must keep our trucks rolling. So that, before I decided who to buy our equipment from, I first found out who had the best service organization.

"Naturally price is important,

but a few dollars more or less makes little difference to my company as long as we buy a good truck with a top-notch service department behind it that'll keep it on the road. That's the important thing."

Now, let's ask ourselves, what makes a good service organization?

Modern Equipment

A good service organization must have good operating facilities. The shop must be large enough to give the men ample room to work efficiently. It must be equipped with the latest and most modern tools permitting the men to work with speed and efficiency. Considering today's high

National Advertising Will Make Bigger Profits for You

Every issue of the SATURDAY EVENING POST from October 20 through November 24 will carry a Dole ad featuring winter replacement.

Install a Dole Thermostat every time you winterize a car. Your customers will appreciate the service and it will mean bigger profit for you. Advertising in the SATURDAY EVENING POST will promote this idea this fall. Put a Dole Salesmaker to work on your counter. Order from your jobber today.

Control with

DOLE
(TRADE-MARK)

The Dole Valve Company
1901 W. Carroll Avenue, Chicago 12, Illinois

Representatives in Principal Cities

A teacher in Brooklyn said: "Joey, give me a sentence using the word 'bewitches.'"

After deep thought, Joey replied: "You go on ahead—I'll bewitches in a minute."

labor costs, it is important that wherever possible electrified equipment be used in order to speed the job and hold down costs.

There should be a machine tool shop where the men may repair parts, and in an emergency, be able to make new parts.

I fully realize that outfitting a modern machine tool shop costs money—our cost \$60,000. But whenever possible, such a shop should be installed because it is a vital element in speeding the repair of trucks.

The second most important factor is the time you are able to offer your customer.

The ultimate in service is, of course, three shifts so that service is available 24 hours a day. However, this is often impossible due to the lack of man-power. In the trucking industry, I would say that two shifts at least are a must.

A little over five years ago when I took over our operation we had no night shift. We now keep our shop open from 8 a. m. to 12:30 a. m. The first shift works from 8 a. m. to 4:30 p. m. and the sec-

(Continued on page 107)



COLEEN GRAY, co-starring in "Bed of Fear" released through United Artists, says

"I like the strong, quiet type!"

Coleen Gray is talking about men... but the same "strong, quiet type" statement can be applied to mufflers... *Maremont* Mufflers. And *Maremont* offers the most complete line... mufflers "tailored" for every make car, for trucks, buses and tractors. No need to turn away customers when you sell *Maremont*... any type muffler, dual set, exhaust or tail pipe is as close as your *Maremont* jobber!

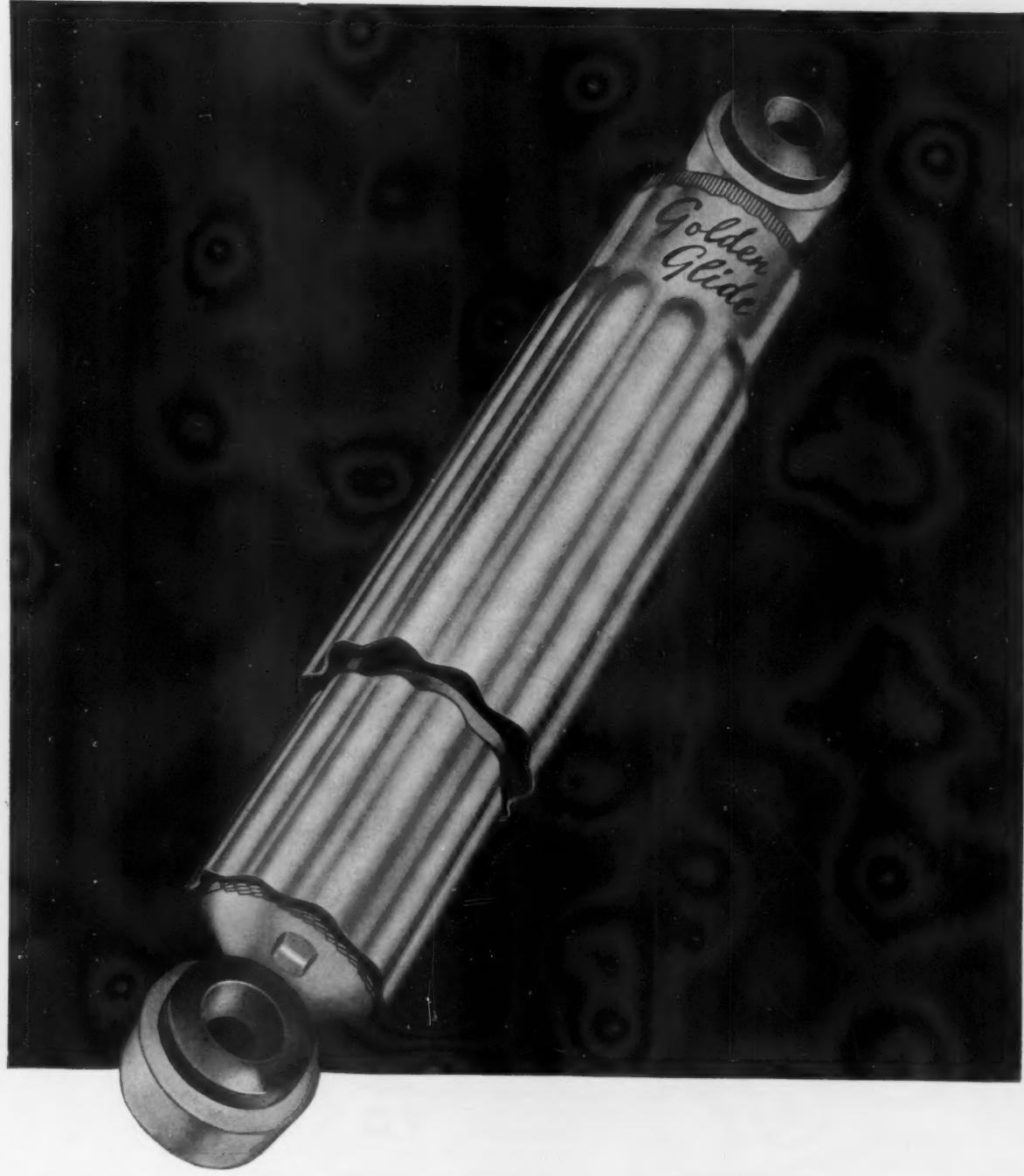
sell and install strong, quiet
MAREMONT MUFFLERS

The right design... for every engine!



MAREMONT AUTOMOTIVE PRODUCTS, INC.

1600 South Ashland Avenue, Chicago 8, Illinois



GOLDEN GLIDE, Hercules and Husky SHOCK ABSORBERS

NOW manufactured by

GOLDEN GLIDE SHOCK ABSORBER CO.

Cleveland, Ohio

Service Continued from page 104

ond shift works from 4:30 p. m. to 12:30 a. m.

The result of having this shift has been that our sales volume has more than doubled and our service and parts business has tripled.

Opens A Night Shift

If I were asked what had been the most important single factor in the improvement of our business, I would say that one was the opening of our night shift. For it is a great convenience to the truck operator to have the opportunity to leave his truck at the shop at 5 o'clock after a day's work is completed, and then to be

from the help you give your customer in preventing "Down Time." I know of no advertising campaign that will "pay off" as well as the words that your salesman uses when he says, "Our shop is open sixteen and a half hours a day." This means to the customer that there may be no need to "lay up" his trucks; if the work is not com-

pleted by 4:30 and the job warrants it, it will be done before morning and he's in business!

The next most important factor in the operation of a good service department is records. When I say records I stress chassis records.

I will never understand why so many dealers fail to keep a complete set of chassis records when the supplier is willing to spend the time and the money to make

(Continued on page 110)



able to pick it up, repaired and ready to go at 8 o'clock in the morning in time to do a day's work. This night shift is especially appreciated by the one-truck-owner or the small operator who cannot afford to "lay-up" his equipment even for a single day.

Now, it may be that many of you will think that the night shift is too costly an operation due to the fact that you are paying premium rates to your men. This cost, however, is more than offset by the increased business reflected

Announces
THE MOST ADVANCED DESIGNS IN
CONTACT SETS

HEAVY DUTY
Ventilated
CONTACT POINTS
TO FIT FORD • MERCURY • LINCOLN

P & D Heavy Duty VENTILATED Contact Sets will give smoother and better engine performance over a longer period of time than any other type set. Better contact surface is obtained and the transfer of metal deposits from one contact to the other is eliminated. Under normal conditions these P & D Contact Sets should give up to three times longer service. That's P & D Quality!

See Your P and D Catalog

Always install a new P & D Condenser with P & D Contacts. P & D has a complete line of matched Contact Sets (Pre-assembled for fast and accurate installation) and Condensers to fit the ignition systems of all cars and trucks. P & D means Performance and Dependability!



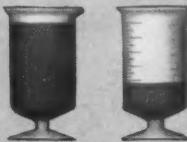
MANUFACTURING CO., INC.
Established 1920
19-02 Steinway St., Long Island City 5, N.Y.

Export Sales: Borg-Warner International, 36 So. Wabash Ave., Chicago 3, Ill.

Here's Why Auto-Lite Sta-ful is America's Fastest Selling Premium Battery

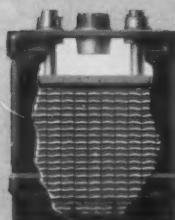
Here's why Sta-ful needs water only 3 times a year
in normal car use

Liquid reserve of
Auto-Lite Sta-ful

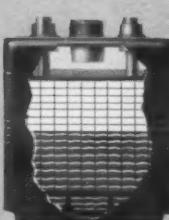


Liquid reserve of
ordinary batteries

AFTER EQUAL
EVAPORATION
THIS HAPPENS



Auto-Lite Sta-ful plates
are fully covered and active



Ordinary battery plates are
exposed and partially inactive

Fibre-glass insulation protects
power-producing plates, assures longer life

sta-ful

Needs water only 3 times a year!*

*In normal car use

FAMOUS SLOGAN SUPPORTED 100%

The 2-million-mile test more than supported the famous slogan—"needs water only 3 times a year." And with this kind of conclusive proof, Auto-Lite is making sure the public knows the facts through one of the most powerful national advertising programs in industry. Advertising will appear in every major advertising medium—magazines, newspapers, billboards, and TV in selected marketing areas.

sta-ful

IS BEST BY TEST!

A tough, two-million-mile test proved Auto-Lite Sta-ful the finest battery money can buy! This conclusive test was made with *production line* Sta-ful Batteries in 100 cars of 17 different makes. They were driven in desert heat and Arctic cold.

Here are the dramatic results of that rigidly controlled test:

- 9 out of 10 batteries subjected to this test needed water only two times a year, and none needed water more than three times a year.
- Of the 100 batteries tested, not one failed.
- Over 95% of the batteries exceeded the initial cold discharge voltage requirement of a new battery.
- Over 81% exceeded the initial cold capacity requirement of a new battery.



sta-ful

IS PRICED RIGHT!

There's an Auto-Lite Sta-ful Battery for every car owner. Prices start as low as \$21.95 and the line includes both 6- and 12-volt applications. Sta-ful means better value for your customers and more profit for your pocket.

ASK YOUR JOBBER...

Ask your jobber salesman about the brand-new program on Auto-Lite Batteries. It means better value for your customers and more profit for you.

NOW DRY-CHARGED!

The entire line of Auto-Lite Sta-ful Batteries is now available dry-charged! No more worries about storage problems. Auto-Lite Sta-ful Batteries are fresh when you buy them—fresh when you sell them.

Dry-Charged Auto-Lite Sta-ful Batteries are easy to sell. You can tell your customers how easy it is to activate an Auto-Lite Sta-ful. You simply pour Activite fluid into each cell, replace the caps, and the battery will be ready for full-power action.



THE ELECTRIC AUTO-LITE COMPANY, TOLEDO 1, OHIO

AUTO-LITE

sta-ful

NEEDS WATER ONLY 3 TIMES A YEAR*

*In normal car use

Service • Continued from page 107

these records available.

In the first place, no good parts department can function properly without adequate chassis records. If your parts manager doesn't know the parts that went into the trucks that your customers bought he is not able to keep the proper parts in stock to make repairs. Without these specific parts your

service department cannot make the required repairs unless they go to the trouble and expense of making them, or unless they take the time to order and receive them. Both actions hold up production and increase costs. So that, failure to keep adequate chassis records often result in long and costly delays to your customer

with the resulting loss of goodwill and profit to yourself.

Then too, in the area of personnel relations your service manager is handicapped without proper chassis records. Why must he spend hours trying to unravel the component parts of a truck when a good system of chassis records will give him the answer in minutes? There should be no excuse for poor chassis records.

Every good service organization should be engaged in the engine rebuilding program.

Up-to-Date Records

If you have kept your chassis records up-to-date, you know what engines are most popular in your territory. Think of the satisfaction of your one-truck-operator when he comes in for an engine job which he expected would take two or three weeks, when you tell

TWO

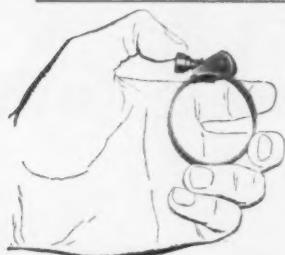
things count in a hose clamp . . .

Snaplock gives you both!



Goes on in seconds —

No need to back band out of housing—clamp is open, ready to slip over hose. Snap down screw, take up slack, and clamp is locked.



Stays on for good —

Snaplock's unique "swivel action" screw insures permanent grip. As slack is taken up, downward pressure is exerted on screw . . . The greater the pressure, the tighter the grip!

SEE HOW SNAPLOCK'S "SWIVEL ACTION" WORKS.
SEND FOR YOUR SAMPLE TODAY!

The pacesetter in hose clamps since 1913



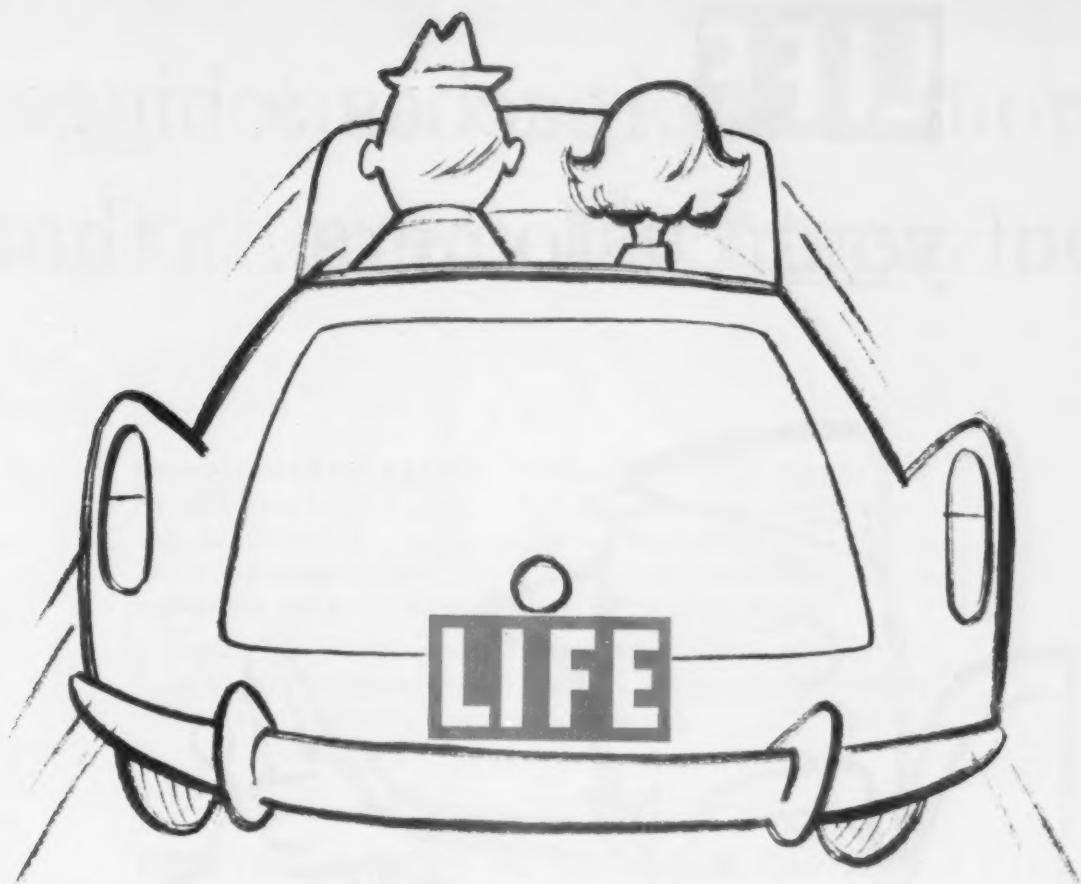
him you have a rebuilt engine to put into his truck immediately and he need lose only a day or two instead of the two or three weeks that he expected his truck to be out of operation!

Not only does this program benefit the customer, but also your own shop because engine-rebuilding helps take up the slack time when customer's work is not available and so avoids laying off your men in slack periods. One of the best ways to keep good men is to see that they are employed 52 weeks in the year. With an engine-rebuilding program, that is possible without any monetary loss to the employer.

This program need not be confined to engines, but may be extended to other parts of the vehicle.

In other words, I stress the very best use of both equipment and personnel—those things in those areas which are so often overlooked or taken for granted to the

(Continued on page 119)



**SETS THE PACE
IN THE AUTOMOTIVE FIELD**

BECAUSE....►



LIFE reaches a bigger
of your customers . . . than



LIFE is America's greatest automotive

automotive market . . . more any other weekly magazine

SHOWPLACE OF THE NATION. Year after year, LIFE presents the greatest continuous motor show on earth to the greatest audience in weekly magazine history. It's the favorite by far with millions of automobile owners and prospects. Week after week, motoring America is pre-sold on automobiles and automotive accessories by the pages of LIFE.

Day after day, LIFE's powerful selling impact is felt at the local level . . . in all phases of the automotive field . . . wherever and whenever automobiles, auto accessories or auto services are sold.

FIRST WITH MORE AUTOMOBILE OWNERS

An average issue is read by
30.4% of all car-owning households in the U. S. A.



sales force in print—because →

LIFE holds the largest more people more

**LIFE IS A FAMILY
AFFAIR**



something for every age and every eye . . . something of
interest for every taste and type.

A man's world, a woman's world, a world for eager youth . . . a special
interest, a general curiosity, a plain or fancy taste . . . whatever in the
world a person wants to see . . . it will be seen sooner or later in the
pageant of LIFE.

And because more people

weekly audience by giving of what they want



MORE EXCITEMENT



MORE FUN

MORE INFORMATION



LIFE has the highest circulation of all weekly magazines . . . and
a single issue is read by 26,450,000 people every week.

LIFE LEADS THEM ALL

In weekly readership

LIFE	26,450,000
Look (bi-weekly)	18,050,000
Saturday Evening Post	14,050,000

In weekly circulation

LIFE	5,714,720
Saturday Evening Post	4,943,838
Look (bi-weekly)	4,201,297

read LIFE, it follows that . . .



Automotive advertisers pre-selling power of **LIFE**

LIFE leads in total advertising revenue

\$121,002,776 in 1955

\$68,667,056 Jan.-June 1956

LIFE IS A POWER IN ALL PHASES OF THE AUTOMOTIVE FIELD

In 1955, advertisers of automotive equipment, accessories, and services invested heavily in the power of LIFE.

*Passenger Cars
& Vehicles*

\$10,375,485

*Automotive Accessories,
Equipment, Miscellaneous:*

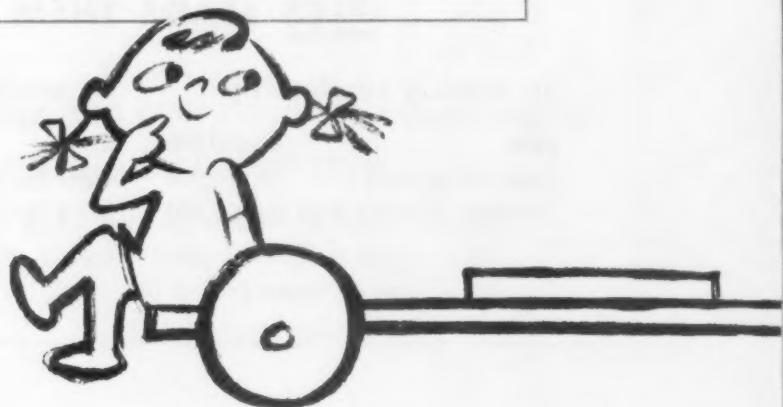
\$3,114,309

Tires & Tubes:

\$2,104,384

Gasoline, Lubricants, other Fuels:

\$1,802,657



This national sales power pays off for

make the most of the

ADVERTISED IN
LIFE

IS A VITAL, HIGH-POWERED SALES AID

With the general sales situation becoming increasingly competitive, the powerful neighborhood impact of LIFE has become increasingly important.

Thousands of service stations and garage operators, parts outlets and auto dealers have learned that LIFE is a vital, effective force at the point of

sale. By using "Advertised-in-LIFE" promotion material, by featuring LIFE-advertised products regularly, they're capitalizing on a pre-sold market.

Whether it's tires, accessories, service features or a new car—motorizing America is a ready prospect for the products they see regularly in the pages of LIFE.

ADVERTISED IN
LIFE

DOES 3 BIG JOBS FOR YOU

Every time you feature the famous "Advertised-in-LIFE" symbol

you're getting the benefit of its *three-way* sales power.

1. YOU ATTRACT MORE CUSTOMERS

2. YOU BUILD PRESTIGE

3. YOU STIMULATE SALES



you ... in today's high-pressure market

PROOF OF THE POWER OF LIFE

Advertisers in the automotive field
constantly rely on it to pre-sell their products

See the size and scope of LIFE's influence from this list of 1955
advertisers. Judge for yourself how much faith the automotive
field puts in the selling power of America's biggest magazine.

AMERICAN MOTORS CORP.
Hudson Passenger Cars
Nash Hudson Rambler
Passenger Car
Nash Passenger Cars

AMERICAN PETROLEUM INSTITUTE
American Petroleum Institute
Oil Industry Committee

ARMSTRONG RUBBER CO.
Armstrong Car Tires

ATLANTIC REFINING CO.
Atlantic Motor Oil

ATLAS SUPPLY CO.
Atlas Tires Car
Atlas Batteries
Atlas Perma Guard Anti-
Freeze
Atlas Tires, Batteries &
Accessories

CHAMPION SPARK PLUG CO.
Champion Spark Plugs

CHRYSLER CORP.
Chrysler Corp. General
Promotion
Chrysler Passenger Cars
DeSoto Passenger Cars
Dodge Passenger Cars
Imperial Passenger Cars
Plymouth Passenger Cars
Mopar Parts & Accessories

COMMERCIAL SOLVENT CORP.
Peak Anti-Freeze

DINSMORE INSTRUMENT CO.
Dinsmore Auto Compass

DU PONT DE NEUMOURS, E. I. &
CO. INC.
Du Pont Automotive
Chemicals
Du Pont Cleaning & Polish-
ing Aids
Zerone, Zerex Anti-Freeze

ELECTRIC AUTO LITE CO., THE
Auto Lite Batteries
Auto Lite Spark Plugs

ELECTRIC STORAGE BATTERY CO.
Exide Batteries
Willard Storage Batteries

ESHELMAN, CHESTON L. CO., THE
Eshelman Car Snow Plow

ETHYL CORP.
Ethyl Antiknock Compound

FIRESTONE TIRE & RUBBER CO.
Firestone Tires Car
Firestone Tires Truck

FORD MOTOR CO.
Continental Mark II
Passenger Car
Ford Motor Co. General
Promotion
Ford Passenger Cars
Lincoln Passenger Cars
Mercury Passenger Cars
Genuine Ford Parts

FRAM, CORP.
Fram Oil Filters

GENERAL MOTORS CORP.
Buick Passenger Cars
Cadillac Passenger Cars
Chevrolet OK Used Cars
Chevrolet Passenger Cars
Fisher Body
General Motors Automotive
General Promotion
Oldsmobile Passenger Cars
Pontiac Passenger Cars
AC Fuel & Vacuum Pumps
AC Oil Filters
AC Spark Plugs

DELCO REMY ELECTRIC SYSTEM
Delco Storage Batteries
General Motors United

Motors Automotive
Products
Genuine Chevrolet Parts

GENERAL TIRES & RUBBER CO.,
THE
General Tires Car

GOERLICH'S
Silentone & Dynatone Muffler

GOODRICH, B. F. CO., THE
B. F. Goodrich Co., A. T. A.
Foundation
B. F. Goodrich Tires Car

GOODYEAR TIRE & RUBBER CO.
Goodyear Tires Car

GRAND SHEET METAL PRODUCTS
Co.

Grand Dual Exhaust System

GULF OIL CORP.
Gulf No-Nox Gasoline

HAMBRO TRADING CO. OF
AMERICA, INC.
Austin Healey Passenger Cars
MG Passenger Cars—Hambro

HESTER BATTERY MFG. CO.
Hester Batteries

HOLLINGSHEAD, R. M. CORP.
Hollingshead Cooling System
Chemicals

HOUDAILLE INDUSTRIES, INC.
Golden Glide Shock
Absorbers

JOHNSON, S. C. & SON, INC.
Johnson's Carnu

KAISER MOTORS CORP.
Willys Passenger Cars

LIBBEY OWENS FORD GLASS CO.
Libbey Owens Ford E-Z Eye
Safety Plate Glass

NATIONAL ASS'N. OF INDEPEND-
ENT TIRE DEALERS
Tire Retreading Institute

PACIFIC WESTERN OIL CORP.
Veedol Motor Oil

PLASTONE CO., INC.
Turtle Wax Auto Polish

POWELL MUFFLER CO., INC.
Powell Muffler

QUAKER STATE OIL REFINING
CORP.
Quaker State Motor Oil

READING BATTERIES, INC.
Rebat Automotive & Air-
craft Batteries

ROBERTSHAW FULTON CON-
TROLS CO.
Robertshaw Fulton Autostat

ROWSE MANUFACTURING CO.
Pit Fire Charcoal Fuel

S. O. S. CO., THE
S. O. S. Magic Scouring Pads
—Tire Cleaner

SHELL OIL CO.
Shell X-100 Motor Oil

SIMONIZ CO.
Simoniz Bodysheen
Simoniz Cleaning & Polish-
ing Aids

Simoniz Method Contest

SOCONY MOBIL OIL CO., INC.
Mobil Tires Car
Mobil Batteries
Mobil Car Services
Mobilgas Gasoline
Mobiloil Motor Oil

STEWART WARNER CORP.
Alemite C D 2 Additive

STUDEBAKER PACKARD CORP.
Packard Passenger Cars
Studebaker Passenger Cars

TEXAS CO., THE
Texaco Dealer Service
Texaco Fire Chief Gasoline
Texaco Havoline Motor Oil
Texaco Sky Chief Gasoline
Texaco Marfak Lubricating
Grease

Texaco PT Anti-Freeze

U. S. RUBBER CO.
U. S. Royal Tires Car
U. S. Royal Tires Tractor
Car & Truck

WALKER MFG. CO., OF
WISCONSIN
Walker Exhaust Silencers

WESTINGHOUSE ELECTRIC CORP.
Westinghouse Safe T-Beam
Headlamps

WHITE MOTOR CO., THE
White Trucks

WIX CORP.
Wix Oil Filters & Cartridges

WOOSTER RUBBER CO.
Rubbermaid Kar Rugs

ADVERTISED IN

LIFE

is one of the most powerful
sales aids you can use

Sources: Audience Figures:—*A Study of the Household Accumulative Audience of LIFE and A Study of Four Media*

Circulation Figures: ABC Publisher's Interim Statement, Jan.-March, 1956

Advertising Revenue Figures: Publisher's Information Bureau (gross figures)

WILLYS JEEP DISPATCHER, designed for light delivery work particularly in congested traffic areas, is being introduced by Willys Motors, Inc. Highly maneuverable and economical to operate, the Dispatcher is offered in a hard top model (illustrated), a convertible canvas soft top, and a basic open model. The hard top has a Fiberglas reinforced plastic roof and sliding doors for easy dock or curb side loading. All models are powered by the Jeep "Go-Devil" 4-cylinder, 60 h.p. engine.

Photo at right



Waitress: What's wrong with the fish?

Diner: Long time no sea.

Service . . .

Continued from page 110

detriment of the organization and therefore the business as a whole.

This thought leads me to the last, but not the least important part of my subject. That is, the men who work on the trucks.

I have kept from discussing this problem to the very end because it is the most difficult problem to solve—this is, personnel and their relations with each other and with the public.

Service Manager

I would say that foremost and of prime importance is the service manager. He must be not only a good mechanic and a good executive, but also a good public relations and personnel man. He has more contact with your customers and your employees than any other man in your organization.

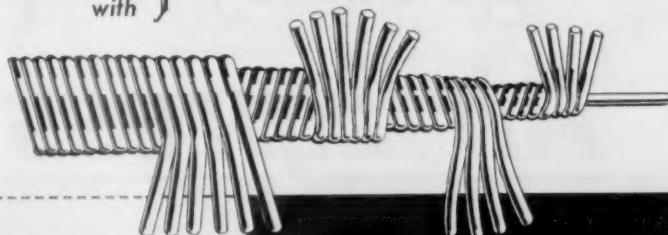
The best type of service manager is often the man who came up from the ranks. The right kind of man has earned the respect of his fellow workers. He also understands the problems of your customers.

Our service manager has been with the company 22 years and started as a mechanic on the bench.

The problem of obtaining skilled labor is the most difficult of all to solve. Here again, a good service manager comes into the scene. He knows his good, mature, experienced men and builds an organization around them with younger men who are trained on the job.

Replace worn
or broken
speedometer
flexible shafts
with

STEWART-WARNER FLEXIBLE SHAFTS



STEWART-WARNER
21-strand
core

...used as original
equipment on leading
makes of trucks and
passenger cars!

Insist on Stewart-Warner—the quality line of core and casing—products of over 50 years of experience in supplying speedometers and speedometer drive equipment to the leading car, truck and bus manufacturers!

Cut maintenance costs—benefit by the important extra advantages of Stewart-Warner 21-strand core construction:

Less "Backlash!" All flexible core will show some torsional deflection or "backlash" under load . . . but careful control of winding operations, combined with rigid standards of inspection, insures a minimum

backlash in Stewart-Warner core.

Non-Raveling! Stewart-Warner core will not ravel when cut. Uniform throughout entire length, regardless of whether tips are put on at the factory or in the field.

Flexible! Correct tension is applied during winding—so that core is soft enough for easy handling and silent operation, yet hard enough to give maximum wear resistance.

Uniform! Top Quality! Careful inspection and manufacturing control is your assurance of the long service life for which Stewart-Warner products are famous.

Call Your Stewart-Warner Distributor today!

STEWART-WARNER

Instrument Division, Dept. J-86
1840 Diversey Parkway, Chicago 14, Illinois

ANNOUNCEMENT

greatly expanded
Air Express service

***RADIO-EQUIPPED
TRUCKS**
†**TELETYPE NETWORK**

**More speed!
Constant shipment control!
No extra cost!**

NCING:

* In one metropolitan center alone, Air Express has reduced average pick-up and delivery time by more than half! (And it was notably efficient to start with!)

Amazingly — by introduction of new equipment and new methods — Air Express is chalking up new records for cutting "ground time" of shipments.

Radio-equipped trucks in leading markets are now in constant touch with Air Express Dispatchers. Pick-up time is cut to a minimum. Deliveries are expedited.

All this speed-up of service with Air Express is now yours — with no added charges!

† Air Express now can practically pinpoint shipments. A key-city network is linked together by private teletype service, tied in with scores of other communities in a nationwide network.

All along the route, teletype carries the vital information of all load messages — weight, number of pieces, destination, plus special information or instructions.

Thus, the greatest possible control of Air Express shipments — at no increase in cost to you!

In fact, thousands of users regularly find "Air Express costs less" than any other service!



Two-way Radio of the most modern design connects this Air Express truck with central Dispatcher — cuts "ground time" for shipments more than half—yet, costs you no more!



New Teletype Service enables you, the shipper, or your consignee, to "keep an eye" on Air Express shipments — trace them en route — meet them on time — and at no extra cost!

For the world's most efficient, most complete air shipping service—linking some 23,000 U. S. communities, all by one through carrier—call



Air Express

GETS THERE FIRST via U.S. Scheduled Airlines

CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY

Sunday Closing Continued from page 47

in New Castle County, (including Wilmington) are evenly divided but in the rural sections practically all dealerships are closed. So reports W. H. Kelley, assistant manager, DADA.

"We have never depended upon legislation for our Sunday closing," writes R. Earl Burrows, secretary of the Cleveland Automobile

Dealers' Association, from Ohio.

"Geographically, the Greater Cleveland marketing area covers Cuyahoga County and the County consists of approximately 60 large and small suburban municipalities. A few have Sunday closing ordinances . . .", Mr. Burrows continues.

"The new and used car dealerships in Cuyahoga County have ob-

served Sunday and holiday closing of their organizations for 22 years. We started in 1934 by a simple gentleman's agreement. In the first year this was policed but it has become so well established we do not even have to have signed agreements any more.

"Three years ago, with the co-operation of the used car dealers in Cuyahoga County, we established Tuesday, Thursday and Saturday evening closing hours at 6 P.M.; and Monday, Wednesday and Friday closing hours at 9 P.M. This, too, was by gentleman's agreement. We advertised this policy in the classified advertising columns of the papers for a few months and furnished and applied very attractive decalcomanias on the showroom windows and/or entrance doors to all new and used car dealers; signs that listed the closing hours . . .

"This evening closing was policed pretty much by the used car dealers who did an excellent job—we paid for the advertising, they did all the policing with the result that now we have the evening closing hours as well established as we have the Sunday . . .

"You may be sure our dealers and salesmen appreciate tremendously their Sundays and evenings . . ."

Dealers in Akron, Canton (Stark County) and Toledo have cooperated in a manner similar to Cleveland dealers. In Cincinnati and Dayton (Montgomery County) long standing city ordinances provide for Sunday closing. Ralph E. Caverlee, secretary - manager of Montgomery County (O.) ADA states, "We are pleased to say that so far the effect of that ordinance has not only held in Dayton, Ohio, where (it) is legally effective, but it has also spread its influence throughout the adjacent area."

DON'T GET CAUGHT WITH YOUR STATS DOWN!



Make fill-in time
profit time with the
FLEXON 6 for '56

- Now's the time to plug the gaps in your thermostat stock or you may find yourself turning business away from your door.

Inventory turnover is speeded up when you stock FLEXON Thermostats. The six-model assortment services 91% of all cars on the road today—and simplifies your stocking problems, too.

You're on the way to bigger profits with the **FLEXON 6 for '56**. Call your FLEXON Jobber and have him fill you in—with change-over time at hand, you'll be glad you did.

FLEXON®
QUALITY
proved in service and
backed by over 54 years
manufacturing
experience

Flexonics
AUTOMOTIVE
DIVISION
1398 S. THIRD AVENUE, MAYWOOD, ILLINOIS
T-39
FORMERLY CHICAGO METAL HOSE CORPORATION
Manufacturers of thermostats and flexible metal tubing.
Plants at Maywood, Elgin, Rock Falls and Seneca, Ill., and Memphis, Tenn.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

West Coast Reports

In San Francisco, Oakland, Berkeley, Alameda and Albany (No. Calif.) where retail automobile salesmen are organized under union contracts, the Sunday closing is a must. In other areas of the forty-seven counties of Northern California there has been considerable activity towards bringing about

voluntary Sunday closing. This information has been submitted by Amos T. Crowl, manager of the Northern California Motor Car Dealers Association.

Charles H. Elmendorf, executive secretary of the Los Angeles Motor Car Dealers Association, indicates in his reply that new car dealers are still more than 85 per cent closed. That group entered into voluntary Sunday closing 23 weeks ago.

Most recent development on the matter of Sunday closing was an ordinance introduced to the City Council of Chicago. After public hearings, the proposed ordinance was referred to corporation counsel. His opinion was that the bill was too general in scope and the bill was referred to a sub-committee for revision. Since City Council has adjourned for the Summer there is no chance of actual passage until the body reconvenes in September.

Elsewhere in the state of Illinois, voluntary closing on Sundays has spread effectively from city to city.

I. Albert Peake, chairman of the Sunday Closing Committee of the Automotive Trade Association National Capital Area, Washington, D. C., has summed up the overall feeling of most dealers in his statement, "From a public relations standpoint it is excellent. From an employer-employee relations standpoint, it cannot be surpassed."

Gabriel Company Acquires New Div.

The Gabriel Company of Cleveland, Ohio, took another step in a planned program of expansion by the recent acquisition of the auto, truck and bus heater business of E. A. Laboratories of Brooklyn, New York, according to L. W. Klein, vice president in charge of sales of The Gabriel Company.

The newly acquired operation will be known as the E. A. Heater Division of The Gabriel Company.

Louis F. Mastriani, former vice president and a director of E. A. Laboratories, has moved to The Gabriel Company as general sales manager of the heater divisions. He reported that the Hadees and

Reprints Available

A limited number of reprints of the article "Should Dealers Close on Sundays?" are available. Address your request to: Editor, Motor Age, The Chilton Co., 56th & Chestnut Sts., Phila. 39, Pa.

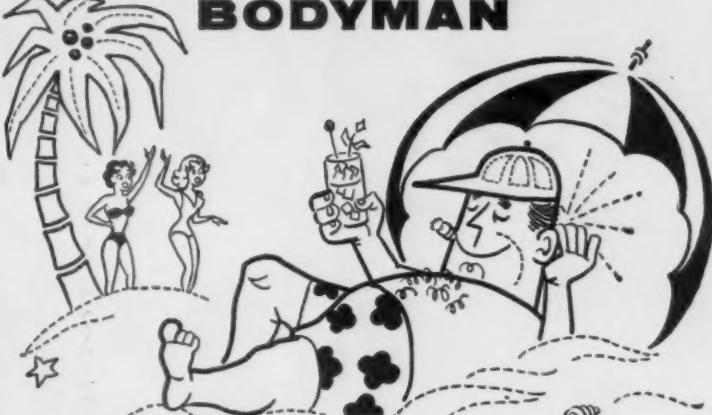
E. A. lines will continue to be marketed through their respective long-established distributors.

Texas Wholesalers Convention in Oct.

The third annual Booth Conference and Convention of the Automotive Wholesalers of Texas will be held in Dallas at the Statler Hilton Hotel on Oct. 25 and 26.

According to AWT headquarters at 603 Perry Brooks Bldg. in Austin, contracts for booth space are still being received. Reservations for booth space will close Sept. 1.

Picture of a Schofield BODYMAN



SCHOFIELD® PRECISION BODY PANELS...

Used by successful autobody men for better, faster, more profitable repair jobs.

With Schofield Body Repair Panels, you can save hours on a job, make a better looking repair, charge your customer less and still make more money on the deal!

Your Schofield Jobber has over 400 different kinds of repair panels and body sections . . . each tailor made for exact fit. Let him help you make your next body repair job the most profitable one you've ever had.

Remember, look for the Schofield label on every replacement panel you buy. If it doesn't have the label, it's not a genuine Schofield panel!

NAME THE
SCHOFIELD BODYMAN
AND WIN \$100
GET ENTRY BLANKS
FROM YOUR
JOBBER OR
DIRECTLY FROM THE
SCHOFIELD MFG. CO.



Write for your personal copy of the Schofield catalog today!

JOBBERS: Choice territories still available. Write or wire for full details.

SCHOFIELD MFG. CO.
WORLD'S LEADING MANUFACTURER OF AUTobody REPLACEMENT PANELS

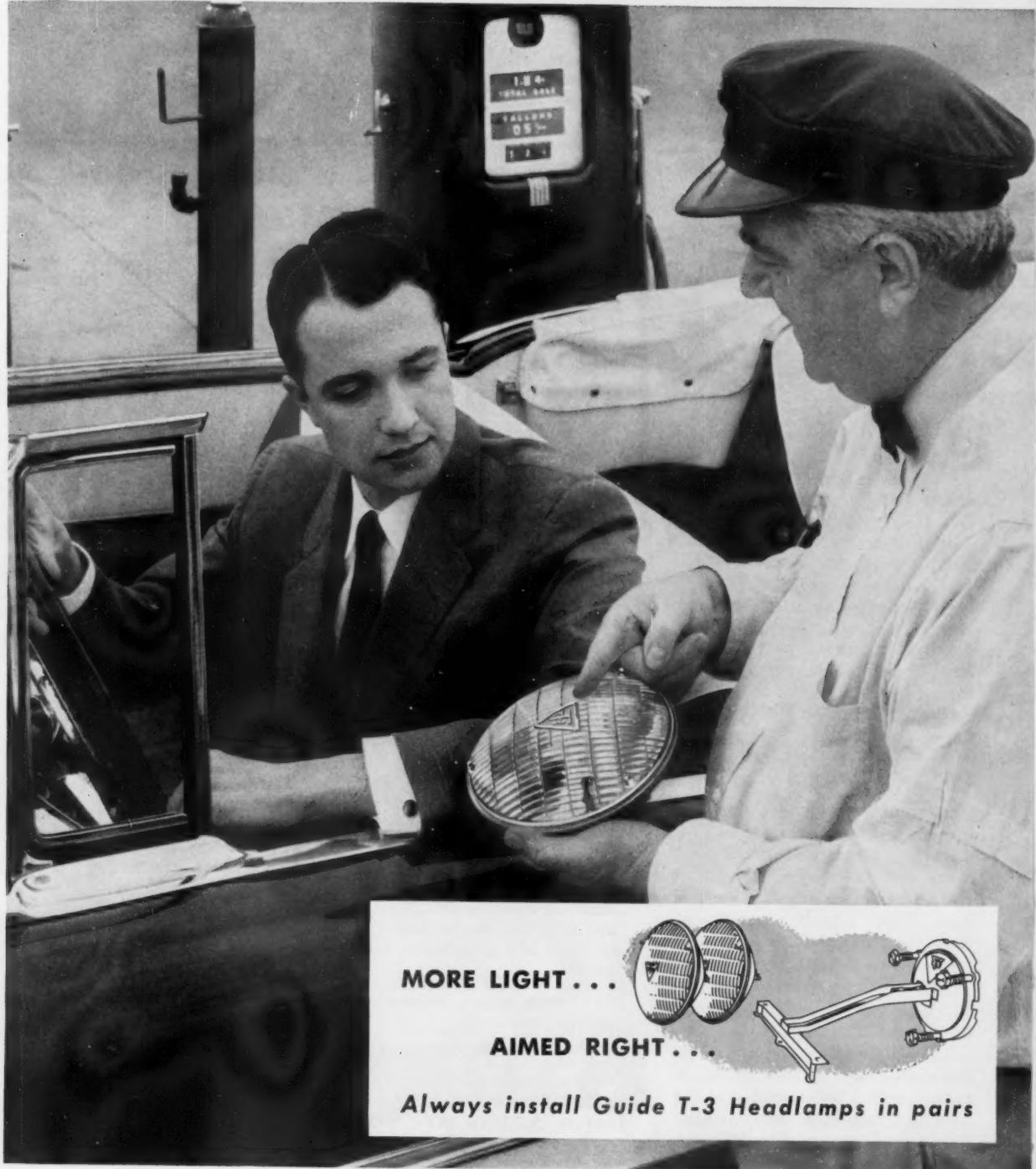
1147 E. 222nd ST.

A BETTER JOB
—QUICKER

CLEVELAND 17, OHIO



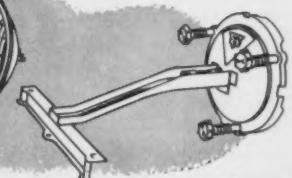
AC's "Pull the"



MORE LIGHT . . .



AIMED RIGHT . . .

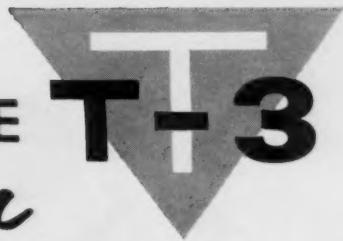


Always install Guide T-3 Headlamps in pairs

"switch" helps you give the "Pitch"!



about GUIDE T-3 Safety-Aim HEADLAMPS



"Pull the Switch" is your cue to give the complete Guide T-3 Safety-Aim Headlamp story. If you do, you'll increase your profit and volume, and improve your customer relations. The Guide T-3 Safety-Aiming System is the originator of *more light-aimed right!*

Previous to Guide T-3 Headlamps, the only reasons for replacing headlamps were that they were broken or burned out. Now, you can offer your customers *more light-aimed right . . .* up to 80 feet more seeing distance; far less glare in rain, snow and fog. With the exclusive Guide T-3 Safety-Aiming System, headlamps can be properly aimed to give car owners this added safety and ease of nighttime driving. Only if headlamps are correctly aimed do they deliver all of the lighting benefits built in them.

And Guide's Safety-Aiming System makes it so easy to replace any sealed-beam unit! One man with a screwdriver can install and adjust Guide T-3 Safety-Aim Headlamps in a matter of minutes and in broad daylight. The secret is the exclusive, easy-to-use Guide T-3 Safety-Aimers . . . and they're priced at only \$18.75 a pair!

Join the thousands of alert dealers who are increasing their sales and profits with the Guide Safety-Aiming System. Make your place of business the official Guide T-3 Safety-Aiming Station for your area. You'll find it pays to "Pull the Switch" with AC. Get all the facts about the Guide T-3 Safety-Aiming System!

Call
your regular **AC** supplier



YOUNG LADY at left is adjusting the air conditioning controls for Oldsmobile's 1956 air conditioning system. Three cool air outlets are located on the instrument panel. According to Oldsmobile engineers, the system can cool the car's interior within the time taken to drive several city blocks—even with outside temperatures over the 90 degree mark.

Executive Changes In General Motors

Harlow H. Curtice, president of General Motors, recently announced a number of changes in the executive organization of General Motors. The changes include the following:

Thomas H. Keating, vice president and director of General Motors and general manager of the Chevrolet Division since 1949, elevated to group executive in charge of the passenger car divisions of General Motors. Mr. Keating, associated with General Motors since 1916, also is a member of General Motors' Operations Policy and Administration Committees.

Edward N. Cole, chief engineer of the Chevrolet Motor Division since May, 1952, will succeed Mr. Keating as general manager of Chevrolet. Mr. Cole joined General Motors in 1930 as a laboratory assistant in the engineering laboratory.

Robert M. Critchfield, vice president of General Motors and general manager of the Pontiac Motor Division since July, 1952, to be in charge of the process development staff at the General Motors Technical Center. Mr. Critchfield joined General Motors in 1921 and served as assistant general manager of the Allison Division prior to his appointment as general manager of Pontiac.

Sam E. Knudsen, general manager of the Detroit Diesel Engine Division of General Motors since March, 1955, will succeed Mr. Critchfield as general manager of Pontiac. Mr. Knudsen, son of the late William S. Knudsen, former president of General Motors, began his General Motors' career with the Pontiac Division in January, 1939, on a special manufacturing assignment.



You can't miss with **TUNGSTEN** **Pre-Set** **CONTACT POINTS**

Mechanics' choice! That's what everyone is saying about these TUNGSTEN Pre-Set CONTACT POINTS. Why? Because all the trial and error has been taken out of contact point replacement work.

These Pre-Set points are already assembled and perfectly aligned before you take them out of a Tungsten package. That's why you can't miss when you install 'em — that's what saves money and time — especially in those hard-to-get-at distributors.

Make sure you have enough of these TUNGSTEN Pre-Set CONTACT POINTS on hand. They're big league stuff in any league — in sales, in profits and satisfied customers.

Available for most popular cars, trucks and tractors for either left or right side installation in 6 or 12 volt systems — 1937 thru 1956.

JOBBERS: — Exclusive distributorships open in lucrative territories. Write today!

For quality ignition parts

at a down-to-earth price — **CONTACT TUNGSTEN!**

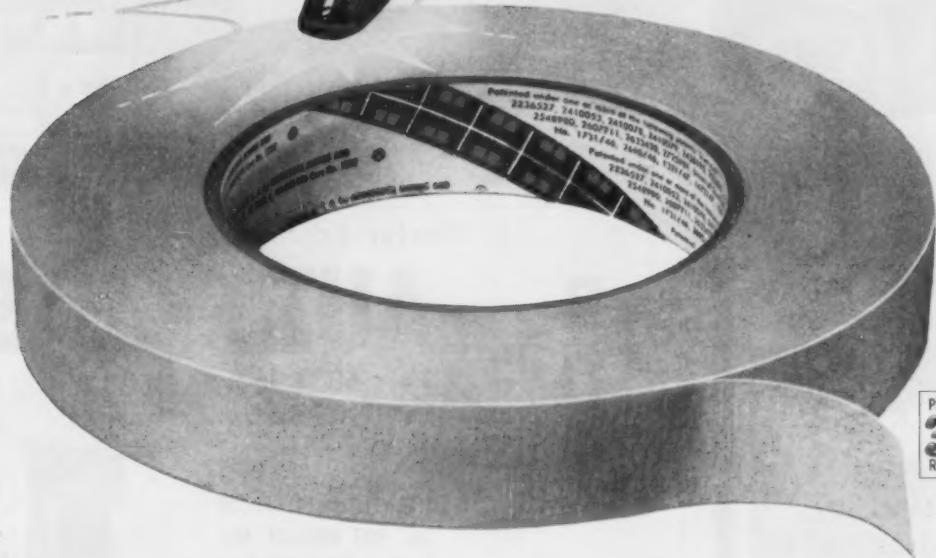
TUNGSTEN CONTACT MFG. CO. • North Bergen, N. J.

Write for
Catalog

NEW FORMULA
REG. U. S. PAT. OFF.
Scotch
BRAND
MASKING TAPE

with the

Magic Touch!



PRODUCT OF
3M
RESEARCH

YOU ASKED FOR IT! A masking tape tailored to meet today's high-speed masking requirements. And here's your answer—*new formula* "SCOTCH" Brand Masking Tape with the exclusive MAGIC TOUCH. It goes on so easy . . . sticks so tight . . . comes off so clean.

USE NEW FORMULA "SCOTCH" Brand Masking Tape with the MAGIC TOUCH for all your repaint work. It's the *surest* way to turn out top-notch two-tone and all-over paint jobs! Order the rolls with the bright plaid cores from your 3M jobber. Better do it *today*!

Only "SCOTCH" Brand Masking Tape has the *Magic Touch!*



GOES ON
SO EASY!



STICKS
SO TIGHT!



COMES OFF
SO CLEAN!

Only NEW FORMULA "SCOTCH" BRAND does all three!

The term "SCOTCH" is a registered trademark of Minnesota Mining and Manufacturing Company, St. Paul 6, Minn. Export Sales Office: 99 Park Ave., New York 16, N.Y. In Canada: P. O. Box 757, London, Ontario.



New Products Continued from page 61

CORNWELL Electrolyte



For Dry Charged Batteries

MEETS ALL BATTERY SPECIFICATIONS



ALSO AVAILABLE
IN 1.4 QT.
PLASTIC BOTTLES

Available in Export Crates
For Quotations Dept. MA 8

Cornwell Chemical Corp.

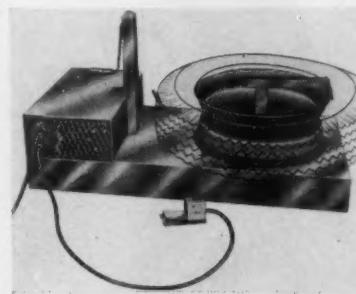
Executive Offices: 24 East 38th St.,
New York 16, MUrray Hill 3-0174
Sales Offices: Cornwells Heights, Pa.
(Philadelphia), Cornwells 0700—
Orchard 3-2088; 744 Broad Street,
Newark, N.J., MArket 4-2776

lighted separately. The reflective surface on the panel outlines the beam patterns of the two headlamp types.

Write: Westinghouse Electric Corp., Lamp Div., Bloomfield, N. J.

Truck Tire Machine

Coats Company: A power-driven machine for mounting and demounting heavy truck tires has been marketed by this firm. Called the Motorized Truck Tireman, the



unit is driven by a three-quarter horsepower motor. Both Budd and

BUY BONDS

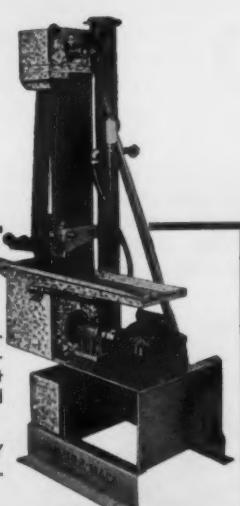
AUTO GLASS
Plus 60% Increase
in Belt Life . . .

"SOMACA" No. 106-FB12RP
106" WET ABRASIVE BELT
MACHINE WITH "CONTACT
RUBBER ROLLER PLATEN"

Standard of the
Glass Shop Trade

The sensational new Contact Rubber Roller Platen on the ever popular Somaca Wet Abrasive Belt Machine makes a combination hard to beat.

Start saving TIME and MONEY now—write for complete information and prices.



SOMMER & MACA Glass Machinery Co.
Automotive Department
3624 SOUTH OAKLEY AVENUE CHICAGO 9, ILLINOIS

open-type wheels from 17.5 to 24.5 inches can be accommodated by the machine, it is said.

Write: The Coats Company, Fort Dodge, Iowa.

Engine Stand

Manzel Div., Houdaille Industries: A roto-drive repair stand for engine, rear axle and transmission overhauls has been introduced by this firm. Because a mounted unit can be rotated a

(Continued on page 130)

The Mechanic's Best Friend!





Your opportunities...

EXPAND

**when you're the man
who stocks and sells...**

CARTER  **CARBURETORS**

Most car owners want all the horsepower their cars were built to deliver. If you can restore like-new power and performance, they'll flock to your shop.

One of the most profitable steps in tuning cars to top smoothness is genuine Carter Power Center recarburetion. For full details call your Carter supplier . . . right away.

CARTER CARBURETOR

DIVISION OF  INDUSTRIES
INCORPORATED
ST. LOUIS 7, MISSOURI

get a better
grip on your job
with

Interlocking
channels
a Channellock
exclusive

Re-inforced
tension edge
another Channellock
exclusive

CHAN NEL LOCK

No. 420

"Grips like a pipe wrench!" "A cinch to use in hard-to-get-at places". Reasons why Channellock No. 420 is the first choice of skilled mechanics . . . everywhere. And only Channellock has the interlocking channels that can't jump out no matter how hard you grip. Only Channellock has the re-inforced tension edge to withstand maximum gripping force. So when you ask for a Channellock, be sure you get genuine Channellock. Look for the trade mark on the handle.

CHANNELLOCK
first choice of skilled Mechanics

888888

CHAMPION DEARMONT TOOL COMPANY
MEADVILLE, PENNSYLVANIA

New Products . . .

Continued from page 128

full 360 degrees, an entire repair job and reassembly can be completed without removing the work from the stand and without man-

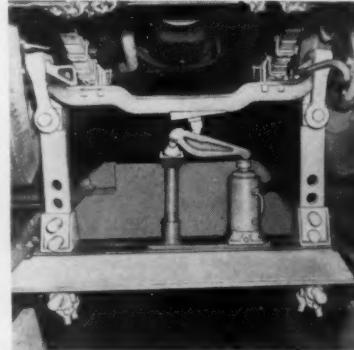


ual lifting, turning or heavy labor, it is claimed. Adaptors are available for all Ford, Lincoln, Mercury and Studebaker-Packard engines.

Write: Manzel Div., Houdaille Industries, Inc., 315 Babcock St., Buffalo 10, N. Y.

Truck Axle Press

Bear Manufacturing Co.: A heavy duty axle press said to develop up to 200 tons pressure has been marketed by this firm. Hook-



ups are made on the vehicle, with no need for dismantling the axle and it is possible to increase camber on wheels individually or simultaneously, according to Bear. For caster corrections, the attachments permit twisting of the axle in either direction, it is said.

Write: Bear Manufacturing Company, Rock Island, Illinois.

(Continued on page 137)

NO LUBE JOB IS COMPLETE

until you lubricate every part that squeaks or binds

AND . . .

THIS IS
THE STICK

THAT DOES
THE TRICK!

Use **DOOR-EASE**®

Stainless Stick Lubricant

On

- DOOR DOVETAILS
- SLIDING SHOES
- STRIKER PLATES
- LOCK TONGUES
- HOOD LATCHES
- ALIGNMENT PADS
- HOOD BUMPERS
- RUBBER SEALS
- GLOVE COMPARTMENTS
- AND OTHER EXPOSED
FRICTION SURFACES

DOOR-EASE completes every lube job! It's the clean, effective way to prevent squeaks, wear, and stop sticking. Won't soil or stain clothes or car upholstery. In two sizes —

Shop Size for service use; 15c

Consumer Resale Size for 1001

home uses. From
jobbers everywhere.

AN
AGS
PRODUCT

AMERICAN GREASE STICK CO.
MUSKEGON, MICHIGAN

The Only Job that Doesn't Need **PERFECT** WHEEL WEIGHTS

Reproduced from
original wood
carving by
Andy Anderson
from the
J. L. Birmingham
collection.

LOCKS ITSELF SECURELY
Under Lip of Rim
Eliminating Any
Outward Dynamic Thrust



with the NEW
and EXCLUSIVE

Safety
LINCHER CLIP[®]

"C" Type Weight

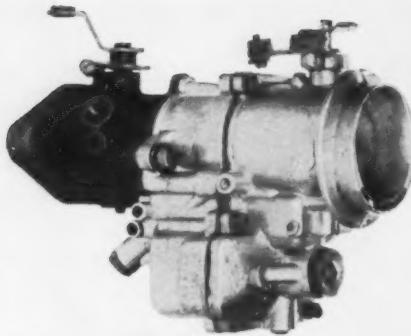
Made for ALL passenger car rims except outside of rims on Cadillacs with large chrome hub caps covering entire wheel or Cadillacs equipped with Sabre spoke wheels. Both these type wheels can be balanced with "C" Type Weights on the inside of wheel. Made in a complete range of sizes.



PERFECT EQUIPMENT CORP.
804 W. Morgan St. KOKOMO, IND. P.O. Box 706

Manufactures of Passenger and Truck Wheel Weights-Coil Spacer Rings-Caster Shims.





This carburetor was a grimy mess —then it got a bath in Oakite Saturol

And look at it now! Oakite Saturol has removed every trace of grease and carbon. It will do the same for your fuel pumps, pistons and other automotive parts.

What it is

Oakite Saturol, a brand-new product in liquid form, is a skillful blend of solvents for carbon, grease, paint, gasket compounds and other soils. Has a high flash point, is safe on metals. Comes ready to use, with a vapor seal floating on the solvent. This seal is broken as parts to be cleaned are immersed in the solvent or lifted out, but is quickly formed again ... and since the seal inhibits evaporation, Oakite Saturol lasts and lasts, giving real economy.

How to use it

Nothing could be easier. Oakite Saturol comes in a special 6-gallon pail, complete with immersion basket. Simply place parts to be cleaned in the basket, then lower basket into the solvent below the vapor seal. Leave for ten minutes to half an hour, depending on condition. Lift out basket and rinse off parts with water or kerosene. That's all. For large parts, or for volume cleaning of small parts, get Oakite Saturol by the drum and use tank-immersion method.

Call your local Oakite Technical Service Representative for a demonstration of Oakite Saturol. Or write to Oakite Products, Inc., 24C Rector Street, New York 6, N. Y.



Technical Service Representatives in Principal Cities of U. S. and Canada

Tune-Up . . .

Continued from page 55

old and new customers, that's as binding as any written contract.

Expanding Since 1952

Bob's phenomenal expansion from a single stall rented shop in back of a gasoline station, to his present 6-car, well equipped shop at San Gabriel Blvd., dates back to 1952. The one man operation of four years ago has now become a four man and one girl business, specializing in dynamometer diagnosis and quality tune-ups.

For a 1-man shop doing engine overhauls, valve grinding, ring replacements, tune-ups and general repairs, the purchase of a dynamometer in 1952 was a major financial undertaking—at least that's what Bob thought at the time. He paid 10% down with the balance on a 36-month time payment contract.

Within two months after the dynamometer installation, the whole character of Bob's business changed. He became so busy on tune-ups and diagnosis work that he stopped all engine overhauls as well as valve grinds.

Bob's decision to become strictly a tune-up and diagnosis specialist certainly paid off. Shop volume and profits grew by leaps and bounds. He had the dynamometer paid for in 18 months instead of 36. Within two years, in 1954, he built his present roomy, well-equipped 6-stall shop. Today, every piece of equipment in his shop, as well as the shop itself, is completely paid for.

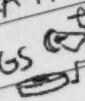
Bob says it is well nigh impossible to adjust carburetors and distributors on the modern car without doing so under road load conditions such as you can have on a chassis dynamometer. Adjustments are so fine and, if not made in proper relationship with each other, major losses in performance, horsepower and gasoline economy will result, he points out.

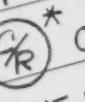
According to Bob, the beauty of the dynamometer lies in the fact that it tells the customer just exactly what is needed to restore performance. He, the customer, compares the horsepower reading of his car before service with the manufacturer's standards, which gives him the reason for the sluggish performance of his vehicle and the need for a tune-up. No high pressure selling is involved.

Delivered to Customer

When a major tune-up is completed, the car is delivered to the customer over the chassis dynamometer where he can see the exact amount of horsepower improvement that has been made. There is no guesswork. He knows what he is paying for.

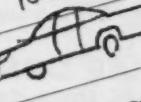
The average increase in horsepower before
(Continued on page 134)

LET EXTRA PROFITS  ROLL IN, CHECK FRONT WHEEL
BEARINGS  ON CUSTOMERS' CARS EVERY 5,000 MILES

--REPACK--AND REPLACE (always replace --NEVER RE-USE)
OLD OIL SEALS  WITH NEW  OIL SEALS 

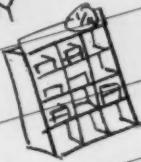
AND, DO IT FASTER, EASIER WITH THE NEW  * ...WHICH DRAMATICALLY
INSTALLATION TOOL KIT 

SHOWS  DRIVERS THAT THEY NEED NEW OIL SEALS...
LETS YOU INSTALL NEW SEALS WITHOUT DAMAGE...

SAVES  WORK AND  TIME. YOU CAN
SERVICE EVERY POPULAR MAKE CAR 

...ORDER THE COMPLETE, FAST-MOVING ASSORTMENT
OF  * OIL SEALS  ...IN THIS HANDY
ATTRACTIVE WALL OR COUNTER DISPLAY.

YOUR SUPPLIER  HAS 'EM NOW!



CHICAGO RAWHIDE



CHICAGO
RAWHIDE

MANUFACTURING COMPANY

REPLACEMENT DIVISION,
Elgin, Illinois

IN CANADA: Chicago Rawhide
Manufacturing Co. of Canada Limited
Hamilton, Ontario, Canada

EXPORT SALES: Geon International
Corporation
Great Neck, New York

*Remember... 

always

means

Correct Replacement

World's Largest Manufacturer of Oil Seals for original equipment
... now offers the most complete replacement line!

The PIONEER Tool FOR INSTALLING VALVE SEAT RINGS

The Biggest
Seller



THE FIRST . . . and still the MOST POPULAR, MOST PRACTICAL, SIMPLEST, MOST UNIVERSAL tool of its kind made. EVERLASTING . . . the first tools made over 25 years ago are still in service.

K. O. LEE COMPANY
ABERDEEN, SOUTH DAKOTA

Tune-Up . . .

Continued from page 132

and after Bob's major tune-ups for the hundreds of cars he services each year is approximately 12 rear wheel horsepower. Many of his customers who keep track of such things, report anywhere from 12 to 14 per cent increase in gas mileage.

Bob says he has many women customers who come in and say "put my car on the thing-a-majig and make it run right." This he does to their complete satisfaction.

Bob's Dyno Service has gained much prestige in his locality. His major business is on late model and sports cars of all types, rarely getting a car older than a 1950 model. Clients include doctors, lawyers, salesmen and both used and new car dealers. He checks used cars for dealers and prospective buyers alike, plus lots of trouble work to diagnose from dealers. Charges range from \$4.50 to \$5.00 for a complete dynamometer check-up. Major tune-up jobs usually run about \$45.00 to \$60.00, minor tune-ups \$5.50 to \$10.00. Practically every major tune-up job includes new spark plugs, points and condenser.

At Bob's Dyno Service, all major repair work is sent out along with a dynamometer recommendation of what should be done. When the overhaul is completed, the car is brought back to Bob's for dynamometer check. He sets the timing and carburetion for maximum horsepower and peak performance.

Bob attracts "hot rod" drivers and sports car racers from all over Southern California. About 25 per cent of his business is tuning up for races and coaxing the last bit of speed and horsepower out of cars for these events.

W. Mitchell Named Director

William H. Mitchell, Jr., has been elected a director of the National Automobile Dealers Association representing Massachusetts. His dealership is West End Chevrolet in Waltham, Mass. He succeeds the late George A. Daley, Jr., of Quincy, according to a recent NADA bulletin.

Mr. Mitchell has been active in the fight against false and deceptive advertising. During the past two years he has been chairman of the Boston Auto Trade Division of the Boston Better Business Bureau. He was also president of the Chevrolet Dealers Association of Boston and New England for four years.

He took over West End Chevrolet in 1940 when it had 15 employees. Now the company has 63 employees and four locations instead of one. New car sales have been increased from 200 to 600 yearly. Repair business in 1940 was \$8,000. Now service and parts sales run \$12,000 monthly.

M-19 POLISHER

MIRASYN WASH MITT

CUT TIME--COSTS
with **PIT-BAR'S**

LONGEST WEARING LAMB'S WOOL—
SYNTHETIC-CHAMOIS PRODUCTS

If you are working too hard, spending too much money, you need Pit-Bar's fully guaranteed car wash and car polish products—Pit-Bar features the most complete line available anywhere—

Ask your dealer, jobber manufacturing representative or write direct for complete information

DYNEL
WASH MITT

FRENCH-PRINCE
ROYAL QUALITY

M-19 POLISHER,
MIRASYN MITT,
DYNEL MITTS,
IMPORTED AND
DOMESTIC
CHAMOIS

CHAMOIS

PIT-BAR

PIT-BAR MANUFACTURING CO.
3311 EAST 45TH ST.
LOS ANGELES 58, CALIFORNIA



To boost profits...

CHECK THE BELTS

To find belt wear always turn belt over

A belt may look all right on top but it's the *underside* that tells the story. Belts that have any of the following signs of wear should be replaced.



CRACKED:

Cracks on *underside* are dangerous. Belt may snap suddenly.



GREASY:

Note the grease-softened undercore and slick sidewalls. Aside from danger of slippage, such belts go to pieces rapidly.



GLAZED:

Slick, glazed sidewalls may cause belt to slip badly. Result: low battery, and over-heating.



PEELING:

Sections of undercore (*underside*) often peel and break off. Belt runs rough—may fail.



SPLIT:

Signs of "fraying" may indicate split in sidewall. Split belts don't ride pulleys properly—may cause sudden trouble.

Here is why on today's cars a belt check is so important

You know something many of your customers may not realize. It's this: Failure of the V-belts can cause mighty serious trouble on the road!

In today's cars, V-belts drive not only fan, water pump and generator but power steering and even air conditioning, too.

Therefore, when you check his belts, you do your customer an important service.

Furthermore, replacing today's multiple V-belts puts real money in *your* pocket.

Gates Belts fit right

...and customers know the name

Because there are Gates V-Belts *precisely engineered* for each make and model car, they fit *right*—save you installation time and trouble.

And when you tell customers you have installed Gates Belts, you'll find they know the name, too. Gates Belts are known around the world for highest quality.

Phone for Belt Rack

Have a display rack of popular Gates V-Belts handy—added proof to customers that they have chosen the right shop, the right mechanic. Make it a practice to check belts for customer protection... and your own profit. Your Gates Jobber has the display rack... and he's as close as your phone.

The Gates Rubber Co., Denver, Colorado—*World's Largest Maker of V-Belts*



TPA-100

Gates Vulco V-Belts



XCELITE Hand Tools
PREFERRED BY THE EXPERTS

10 INCHES OF HARD-WORKING STRENGTH



**XCELITE
CHROME
PLATED
UTILITY
PLIER**

XCELITE INCORPORATED
Dept. K
Orchard Park
New York

For Originality
LOOK TO **XCELITE**

Get into BIG PROFIT "BEAR" ALIGNEMENT BUSINESS

WITH LOW COST #128 SET



No matter how small your operation, here's your chance to get into big profit alignment under the nationally-advertised "BEAR" Sign! The new "Bear" #128 set is so simple, so accurate and so fast you can easily make hundreds of dollars net profit during the first year! And it takes up no more space than a small tool board! **DON'T DELAY ANY LONGER!** Ask your Jobber for details. **Bear Mfg. Co., Rock Island, Illinois.**

1288 R



Ferrari 250 Gran Turismo

The illustration above is of a special hand-made convertible body, designed and built by Boano of Italy for the Ferrari 250 Gran Turismo chassis which was exhibited at Geneva recently. The low lines of the rear fenders not only are ornamental but also highly functional since the two wings serve as stabilizers. The front grille is said to be something of a trade mark of Boano.

The wraparound windshield allows for excellent visibility while still retaining the straight structural lines running from the A-post down to the frame to provide for structural rigidity.

The opening in the hood is functional in nature, supplying fresh air to the air cleaner. The hood itself is typical of current Italian styling—inset within a horizontal surface and slanted forward to gain visibility.

The gear shift lever is mounted on the floor. The steering wheel is of telescoping type, made of metal and hand polished riveted wood sections. Wire wheels were specially designed and made to Boano's specifications.

Program Awards Announced

Fifty-three cities and twelve counties were announced recently as winners of national and state awards for conducting outstanding community Vehicle Safety-Check programs.

Gastonia, N. C., and Craven County, N. C., each received a "Special Judges' Citation," the grand awards for the best city and county Safety-Checks in the nation.

Gary, Ind., Great Bend, Kansas, Trumbull County, Ohio, and Gates County, N. C., were winners of "National Awards of Excellence" for top national city and county programs in their population groups.

Fifty other cities and nine counties were cited for "Outstanding Achievement Awards" in recognition of programs judged the best by population groups in their respective states.

National Vehicle Safety-Check for Communities is sponsored by the Inter-Industry Highway Safety Committee, LOOK Magazine and the National Safety Council.

New Literature Continued from page 130

Spark Plug Spec's

Electric Auto-Lite Company: A 24-page Auto-Lite Spark Plug specifications catalog is now available through this company. It contains complete spark plug specifications covering Auto-Lite standard, transport, resistor, small engine, shielded and marine spark plugs. Information on the new Auto-Lite resistor spark plug with "Power Tip" is included. Write: Electric Auto-Lite Co., Champlain & Chestnut Sts., Toledo 1, Ohio.

Car Wash Equipment

Choldun Manufacturing Co.: A 12-page catalog describing the complete line of Choldun automotive service equipment has been published by this firm. Included in the catalog is a description of

a push-button drive-through automobile laundry that, according to the company can be expanded as business increases. The catalog features descriptions of the Choldun carwasher, car dryers and vacuum cleaners. In addition, it describes a heavy duty truck-washer, oil merchandiser and automatic power flusher. Also described in the colorful catalog is a complete set of selling aids for the car washing field. Write: Choldun Mfg. Corp., 331 East Street, New Haven, Conn.

Refinishing Catalog

De Vilbiss Company: The automobile refinishing guide published by this company outlines nine hints for fine paint jobs. Stressed as requirements for fast, efficient automobile painting are the essential basic items of spray guns, extra cups and covers, and touch-up equipment. The recommended spray gun is fitted with the automobile refinishing cap and tip to handle primers as well as finish coats. Among materials which can be sprayed with it are automotive enamels, lacquers, primers, surfacers and the new acrylic finishes. Write: De Vilbiss Co., 300 Phillips Ave., Toledo 1, Ohio.

Classified Advertisement

EXCELLENT OPPORTUNITY FOR RIGHT MEN—Leading equipment manufacturer has territories open for experienced men to specialize on alignment equipment. Knowledge of front end and alignment procedure necessary. Include complete resume of background, experience, education and age in first letter. Box No. 41, Motor Age, Chestnut & 56th Sts., Philadelphia 39, Pa.

JUST SPRAY IT ON!

ACRA-SEAL®
PLASTIC SPRAY

Waterproofs-Rustproofs
Seals out moisture, oils
and greases, insulates
ignition systems.

with DAUBER
disk for IGNITION SEAL
at Automotive Jobbers

RADIATOR SPECIALTY CO.
Charlotte, North Carolina

Swiss New! BODY FIL-SODER

Miracle 30c solder for use on steel, copper, brass, lead, and iron. No fluxing, no baking. Takes 350° bake. Order from your jobber.

SWISS LABORATORY, Cleveland 14, Ohio

TOPS FOR TIRES
JOB-DESIGNED
KEN-TOOLS

HAND-FORGED FROM
CHROME NICKEL ALLOY STEEL
FOR EXTRA STRENGTH AND EXTRA LONG LIFE

T-1X 18" Straight Spoon

T-2X 18" Curved Spoon

T-21R 18" Drop Center Tool—eliminates
slipping and tube pinching

T-17 New LifeGuard Tube Remover

T-3B 17" All-Purpose Tire Tool—famous favorite
for all-around work

T-66 Universal Hub Cap Remover
for all cars—prevents marring—
keeps cap from dropping—
satisfaction guaranteed

T-10 Bead Spreader for cas-
ing inspection and repair

SEE YOUR JOBBER on the complete line of Job-Designed Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.



QUIET

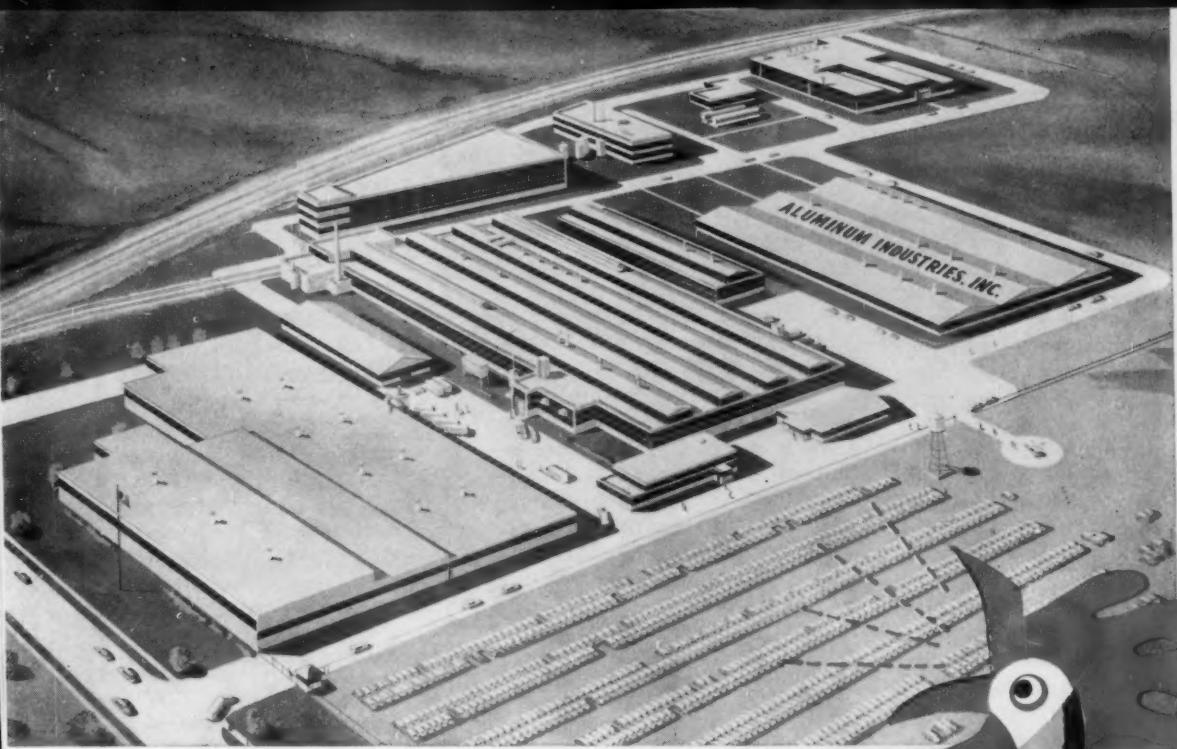
HAVILAND
MUFFLERS

AT WORK!

Arnold Haviland Co.
Defiance 11, Ohio

the secret
of our
good jobs





Something to crow about!

the New Look at
ALUMINUM INDUSTRIES, Inc.

We have expanded our main plants here in Cincinnati, Ohio, to 40 acres of research, development, production and service facilities. These are just the first steps in a tremendous expansion program to meet the growing requirements of our customers.

We're mighty proud to say that the service we offer is unsurpassed. And, of course, as always, Permite Original Equipment Parts are unsurpassed in quality and performance.

Phone your nearby Permite Distributor for the engine and chassis parts you need.

ALUMINUM INDUSTRIES, INC. • Cincinnati 11, Ohio

original equipment

Permite parts

the complete engine and chassis line



Calendar Of Coming Events

Dealers Conventions

August 26-27—Georgia Automobile Dealers Assn., General Oglethorpe Hotel, Savannah, Ga.

Aug. 26-29—Automobile Dealers Assn., of West Virginia, Greenbrier Hotel, White Sulphur Springs, W. Va.

Sept. 7-9—Maine Automobile Dealers Assn., Marshall House, York Harbor, Me.

Sept. 17-18—Minnesota Automobile Dealers Assn., St. Paul Hotel, St. Paul, Minn.

Sept. 18-19—South Dakota Automobile Dealers Assn., Mitchell, S.D.

Sept. 23-25—Texas Automotive Dealers Assn., Commodore Perry Hotel, Austin, Texas.

Sept. 23-25—Colorado Automobile Dealers Assn., Glenwood Springs, Colorado.

Sept. 24-25—Wisconsin Automotive Trade Assn., Hotel Schroeder, Milwaukee.

Sept. 26-28—New Jersey Automotive Trade Assn., Chalfonte-Haddon Hall, Atlantic City.

Sept. 30-Oct. 2—Tennessee Automotive Assn., Gatlinburg, Tenn.

Sept. 30-Oct. 3—New York State Automobile Dealers, Inc., 33rd Annual Convention, The Concord, Kiamsha Lake, N. Y.

Oct. 4-5—25th Annual State Convention, Kansas Motor Car Dealers Assn., Baker Hotel, Hutchinson, Kansas.

Oct. 14-26—Automotive Trade Assn. of Virginia, John Marshall Hotel, Richmond.

Oct. 21-22—Oklahoma Automobile Dealers Assn., Skirvin Hotel, Oklahoma City.

Oct. 21-23—Florida Automobile Dealers Assn., Fort Harrison Hotel, Clearwater, Fla.

Oct. 21-23—Tenth Annual Convention, National Independent Automobile Dealers Assn., Hotel New Yorker, New York City.

Oct. 21-23—Automobile Dealers Assn. of Alabama, Inc., Buena Vista Hotel, Biloxi, Miss.

Oct. 30-31—Illinois Automotive Trade Assn., Pere Marquette Hotel, Peoria.

Nov. 3-5—Texas Independent Automobile Dealers 12th Annual Convention, Statler-Hilton Hotel, Dallas.

Nov. 11-13—Kentucky Automobile Dealers Assn., Seelbach Hotel, Louisville, Kentucky.

Nov. 13—Connecticut Automotive Trades Assn., Hotel Statler, Hartford.

Dec. 2-4—Ohio Automotive Dealers Assn., Cleveland, Ohio.

Dec. 4—Utah Automobile Dealers Assn., Salt Lake City.

Jan. 26-30, 1957—40th annual NADA Convention and NAD Equipment Exhibition, San Francisco, Calif.

June 20-23—Independent Garage Owners of America 2nd Annual Convention, Toledo, Ohio.

Automobile Shows

Nov. 10-17—International Autorama, Commercial Museum, Phila., Pa.

Studebaker Expands Dealer Council

Studebaker's National Dealer Council has been expanded from 11 to 20 members. William A. Keller, general sales manager, has announced in reporting election of members for 1956-57.

Keller said the move to increase the size of the dealer council was made to give each sales zone a representative on the national body.

Three Council members were reelected: William Catlin, Sr., William Catlin & Sons, Jacksonville, Fla. (Atlanta zone); Oliver Cinnater, Crescent City Motors, New Orleans, La. (Memphis zone); and B. H. Lindenbusch, Ben Lindenbusch, St. Louis, Mo. (St. Louis zone). New members are:

Roland Gauthier, Gauthier Motors, Inc., Salem, Mass. (Boston zone); Ralph A. Young, Ostendorf Motor Car Corp., Buffalo, N. Y. (Buffalo zone); Thomas Rothwell, Hall Motors, Amityville, N. Y. (New York zone); Joseph W. Meil, Chester Automotive Center, Inc., Chester, Pa. (Philadelphia zone); I. Walter Sell, Sell Motor Company, Johnstown, Pa. (Pittsburgh zone); R. B. Fleigh, Bob Fleigh, Inc., Baltimore, Md. (Washington zone); John P. Gregg, Gregg Motor Sales, Inc., Joliet, Ill. (Chicago zone); Russ Regenold, Russ Regenold Motors, Anderson, Ind. (Cincinnati zone); Raymond F. Koepke, The Koepke Motor Sales Co., Lakewood, Ohio (Cleveland zone); Robert W. Campbell, R. W. Campbell Company, Flint, Michigan (Detroit zone); Randolph Light, Randolph Light, Inc., Minneapolis, Minn. (Minneapolis zone);

G. C. Myrick, Myrick Motors, Inc., Dallas, Texas (Dallas zone); A. B. Sanders, Sanders Motor Company, Lawrence, Kansas (Kansas City zone); Carl Bartz, Carl Bartz Motor Co., Denver, Colo. (Denver zone); Frank H. Afton, Frank H. Afton Co., Inc., Inglewood, Calif. (Los Angeles zone); William V. Hannah, Hannah Motor Co., Vancouver, Wash. (Portland zone); Robert A. McAuley, McAuley Motors, Merced, Calif. (San Francisco zone).

A pretty six-year-old girl entered the general store and said, "I'd like some cloth for a dress for my dolly."

The merchant found a remnant, wrapped it, and handed it to the child.

"How much is it?" she asked.

"Just one sweet kiss," smiled the merchant.

"All right," said the girl, turning to go. "Grandma said to tell you she'd come in tomorrow and pay you."

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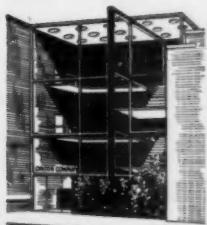
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Top

Those who reach the top in business are usually those who, even while mastering their own responsibilities, are intensely curious about the other fellow's. Take the case of Robert Wood, which may very well be his right name. Every month, he'd sit down with a panel of his industry's experts and absorb every word. Then he'd look up his industry's ace reporters to get all the current news. Finally, he'd study competition to see what it was making and selling, and how. Robert Wood could well afford all this, for his primary investment was his time. The business papers of his industry did the rest. They were his panel of experts, his ace reporters. Their advertising pages showed what competition was up to, and how.



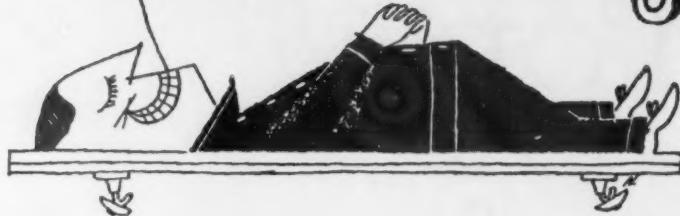
CHILTON PUBLICATIONS
Chilton
COMPANY

Chestnut and 56th Streets • Philadelphia 39, Pennsylvania



CHILTON PUBLICATIONS: Department Store Economist • The Iron Age • Hardware Age • Spectator • Hardware World
Jewelers' Circular-Keystone • Automotive Industries • Gas • Distribution Age • Optical Journal and Review of Optometry
Motor Age • Boot and Shoe Recorder • Commercial Car Journal • Butane-Propane News • Electronic Industries • Book Division

The Last Laugh



"But dear, you once said that you worshipped the ground I walked on."

"Yes, I know, but then I thought you owned the property."

"So you met your wife at a dance. Wasn't it romantic?"

"Romantic? I should say not. It was embarrassing. I thought she was at home taking care of the kids."

Maisy: It's outrageous for that man to charge us ten dollars to tow us three miles.

Daisy: That's all right. He's earning it. I have the brakes on.

Bus driver: How old are you, little girl?

Little girl: If you don't mind, Buster, I'll pay full fare and keep the statistics to myself.

"Why do you date Jack? He can't dance."

"No, but he sure can intermission."



"—and where's your service department?"



"At least this is one sentence I can finish without help from you!"

Host (to guest at cocktail party): Good heavens, you are not leaving yet are you? You just came in.

Guest: No, I am not going, but I thought I'd say goodbye to the folks while I still know who they are.

Floridian (holding a melon): Is this the largest apple you can grow in your state?

Californian: Stop fingering that grape.

Salesman: This model has a top speed of 130 miles an hour, and she'll stop on a dime.

Prospect: What happens after that?

Salesman: A little putty knife comes out and scrapes you off the windshield.

And then there was the guy, slightly under the influence, who met a rattlesnake in the road and said:

"Strike if you must; I was never in better condition."

Visitor: My, what pretty hair you have. You must have gotten it from your mother.

Little girl: I guess I got it from daddy. His is all gone.

"Inspector, will you please help me get off the train?"

"Certainly, what's the trouble?"

"Well, as you can see, I'm fat and so I have to get off the train backwards. The porter thinks I'm getting on and pushes me in again."

"I've been trying to get off for the last five stops."

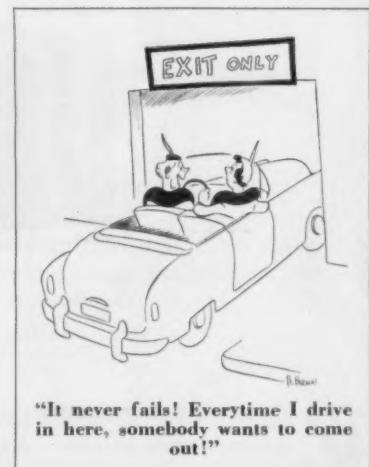
Doctor: "What's the most you ever weighed?"

Patient: "One hundred and fifty pounds."

Doc: "And what's the least?"

Patient: "Seven pounds, six ounces."

Small boy, scowling over report card, said to his dad: "Well naturally I seem stupid to my teacher. She's a college graduate."



"It never fails! Everytime I drive in here, somebody wants to come out!"

Say...

RAMCO

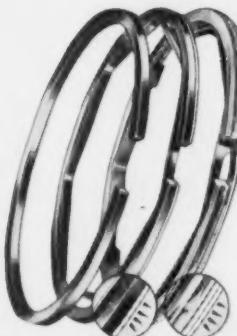
PISTON RINGS

that's All there is to it!



When you say RAMCO to your Jobber, you're sure to Do the Job Right! Actually, that's all there is to it! For regardless of the age, model, service, or wear condition, there's a Ramco Set with years-ahead engineering performance to fix it. The Ramco line has exclusive, patented advances that enable you to insure your customers of Finest Get Up and Go! By Finest we mean on all five counts: (1) Quick Seating, (2) Immediate Oil Control, (3) Positive High Vacuum Oil Control, (4) Continuing Compensation for Wear, (5) Longer Service Life. So, say RAMCO on that next re-ring or re-bore job. For more profit all ways, that's all there is to it! Ramsey Corporation, St. Louis 8, Missouri.

With this one line of years-ahead Piston Ring Sets you can assure every customer of *Finest Get Up and GO!*



10
UP SETS

for quicker seat-in . . .

DOUBLE-LIFE PRINCIPLE

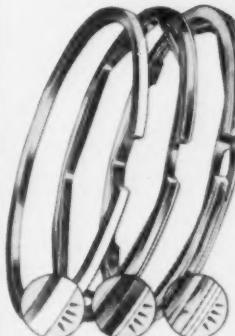
provides initial contact with fast seating, gentle action cast-iron rings

for control of vacuum . . .

POSITIVE SIDE SEALING in oil groove in either new or old type engines

for longer service . . .

NO GAP SPIRO-SEAL provides continuous conformability



10H
UP SETS

for heavy-duty and fast seat-in . . .

HARD CHROME TOP COMPRESSION with precision equalized radial pressure

for control of vacuum . . .

POSITIVE SIDE SEALING in oil groove in either new or old type engines

for longer service . . .

NO GAP SPIRO-SEAL provides continuous conformability with cylinder wall



HEAVY-DUTY RTC SETS

for heavy-duty and fast seat-in . . .

ALL CHROME TOP COMPRESSION RING with equal radial pressure

for elimination of scoring and scuffing . . .

PROFILED CAST-IRON RINGS profiling also prevents cylinder wall damage when operations are abnormal

duomatic  SETS

Every Advantage

of Ramco Engineered 10-Up Design
Plus

GREATER TOP AND BOTTOM SIDE

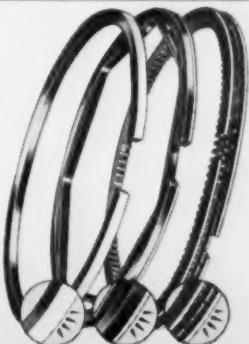
SEALING due to duomatic expander

GREATER CONFORMABILITY due to

multi-point expansion

GREATER COMPENSATION FOR WEAR

due to superior expander design

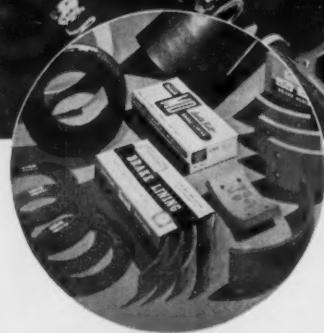


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